

FLIGHT

First Aero Weekly in the World.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

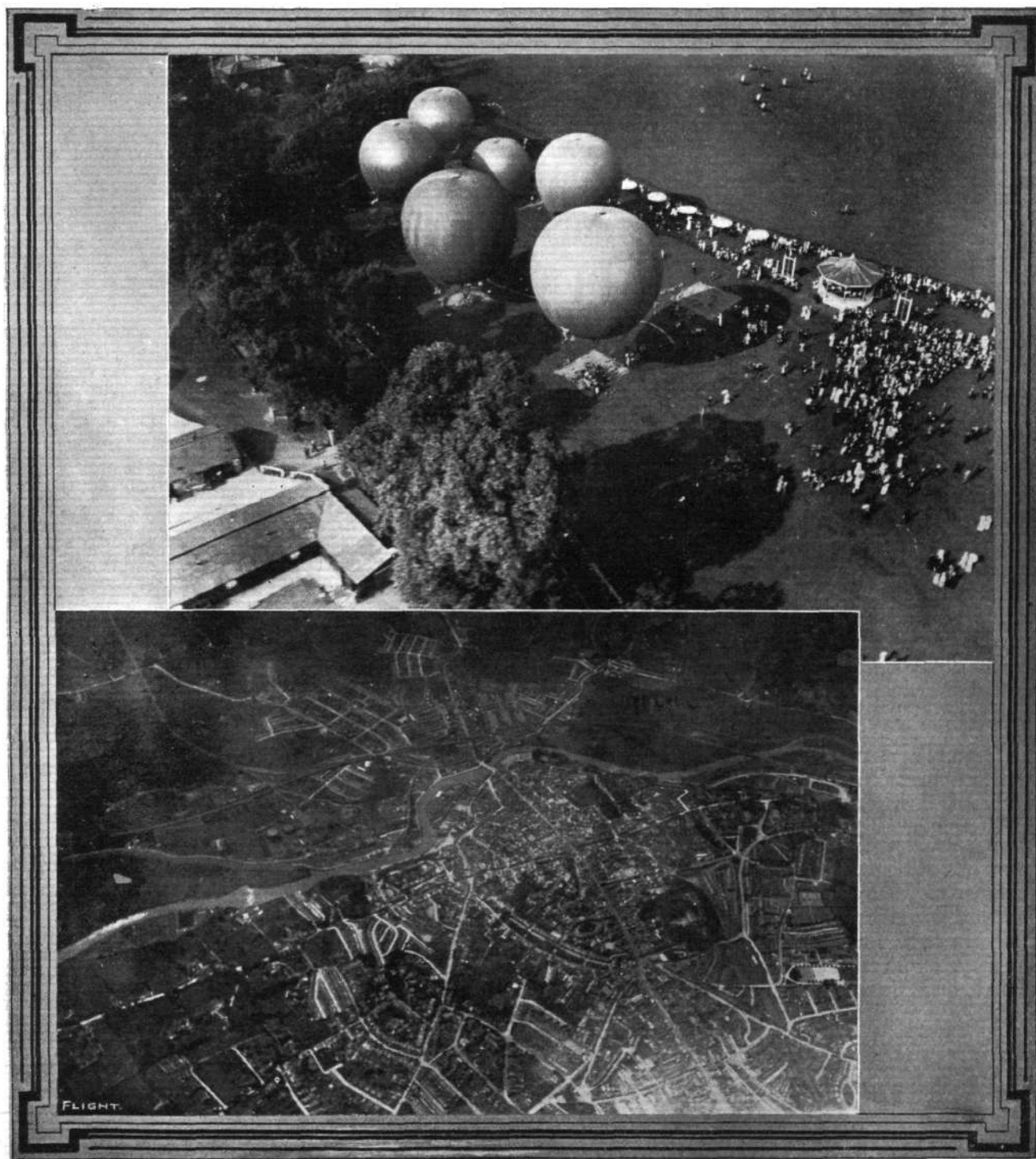
OFFICIAL ORGAN OF THE ROYAL AERO CLUB OF THE UNITED KINGDOM.

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A BALLOON VOYAGE.—The scene at Hurlingham at the start, as seen by Mr. Gustav P. Stollwerck, the German Consul, from his Continental balloon, "Hannover," upon the occasion of the Point-to-Point Race on May 27th. In the lower picture the "Hannover" is passing over Exeter on the day after the Hurlingham Race.

RAILWAYS AND AVIATION.

UNDER this heading the *Railway Times*, in a recent issue, devoted a long leading article to aviation and the relation of the railway companies to the movement. The mere fact that an authority of such weight in railway matters as our contemporary should thus early begin to weigh up this relationship has a significance of its own. It implies a recognition that flying has now to be reckoned with as a means of locomotion—a fact of which those of us who are directly interested from the inside had long ago recognised, but of which many not so closely in touch with progress were sceptical. The article to which we refer points out that the rapid development of aviation in this country calls for attention on the part of the railway companies, because considerable need for special facilities for transportation in rural districts is likely suddenly to arise. We have to look forward, says our contemporary, to the initiation and growth of a comparatively steady traffic, both in the passenger and goods departments. This will arise from the multiplication of flying schools and aerodromes. Already there are such places in the Isle of Sheppey, at Brooklands, Salisbury Plain, and Bristol. A large school is expected to be established at Lingfield, another is to be opened at Huntingdon, and half a dozen others are projected or in course of construction. The prospects are that these are only the precursors, and besides these accomplished facts we have to look forward to the establishment all over the country of grounds to be used, not necessarily for tuition in flying, but as starting and alighting places and centres for repairs for aeroplanes which will be touring the country. Both classes of grounds must of necessity be situated in rural districts, and they may frequently not be close to existing railways, because the prime requirement is a large, open, approximately level piece of ground.

The number of men who can fly is rapidly multiplying, and the rate of increase promises rapidly to accelerate. All these men working on their subject at different rural centres will require many things, and the railway will have to bring these things. First, there will be material for the erection of sheds. Then new aeroplanes must frequently be transported from the manufacturers to the flying grounds. Next will come a steady demand for spare parts, stores and apparatus for repairs, supplies of petrol and lubricating oil. The aviators themselves, mechanics, repairers, groundmen, timekeepers, and so forth, will be frequent passengers on the local railway lines. Whenever the weather is fine, especially on Saturday afternoons and Sundays, large numbers of people visiting the grounds will have to be conveyed by railway. In some cases at least the railway companies may find it advisable to establish new stations near to flying grounds. If the railway is at some distance, the company concerned may find it desirable to provide road motor transport between their nearest station and the grounds, for conveyance of aeroplanes, spare parts, stores, and so on, as well as for passengers. To encourage the conveyance of flying machines by railway, better methods must be adopted than those which allowed the destruction of two aeroplanes by fire while being conveyed to Lanark last year.

In conclusion, the *Railway Times* sums up by saying that while it is impossible to predict to what dimensions the flying business will grow, it is sure to develop, and the railway companies by providing for it as

soon as occasion comes into view may make some of their lines in rural districts appreciably more remunerative.

There is, it is true, not much in all this but what we have realised long enough ago, but it is surely significant of the hold that aviation has got to find such sentiments as these gravely enunciated by an organ of railway opinion. Underlying it all, too, there is a species of cautious conservatism which goes far to indicate that the writer of the article had considered and weighed his subject before committing himself to paper and ink. There is no speculating for the future as to whether or not the day may come when the aeroplane will be a serious rival to the railway passenger service, or whether it will in the near future be useful as feeder of the main lines. For our own part, we should look upon such speculations as idle in the light of present knowledge. What may or may not happen as the sum of that knowledge increases, and the art of aerial navigation progresses, is on the knees of the gods—we cannot foresee it, and are minded to follow the example of the writer in the *Railway Times* in refraining from prophesy. Therein, we believe, lies wisdom, and truly there is no pressing necessity to go beyond the confines of the assured certainties.

One of those certainties is that the writer in question is absolutely right in his facts. There is no more dubiety in flight. Before long, the knowledge of how to handle an aeroplane will be a *sine qua non* among those who aspire to be in the swim of things, though there is admittedly a wide gulf fixed between that condition of affairs and the universal adoption of flying as a matter of everyday course. But even when we have got to that stage, it will necessarily mean that the number of what we may call habitual aviators will have vastly increased, and that in turn means that they will, as our contemporary points out, need accommodation. They must learn to fly, and that means flying schools and aerodromes. The first essential of the aerodrome is that it must be large enough and level enough for its purpose. The second is, that it must be readily accessible either by rail or road, preferably by both.

It is not all open spaces that are so happily situated in this respect as Brooklands, where we found our roads and railways already made and giving ample access to it. There are many places in the three kingdoms which would be splendidly suitable for flying grounds if only we could get at them. For the moment they must be allowed to lie fallow—we do not actually need any more than we have, but as the movement progresses and the number of flying men and aspirants increases, as it will do in the very near future, we shall require other and more extensive grounds to accommodate them. Then will come the day of the railway company which has brought shrewd foresight to bear on the question and the one that has ignored the indications will find that, in vulgar parlance, it has been left. There is no need for us to elaborate farther the pointing of the way to which our contemporary has committed itself. Rather would we point the moral conveyed by the article with which we have been dealing, which is that aviation has achieved to such a position that it is no longer looked upon by serious people as something ephemeral, if not economically impossible, but that its possible bearings on other matters and other industries are being carefully studied by men of weight and authority.

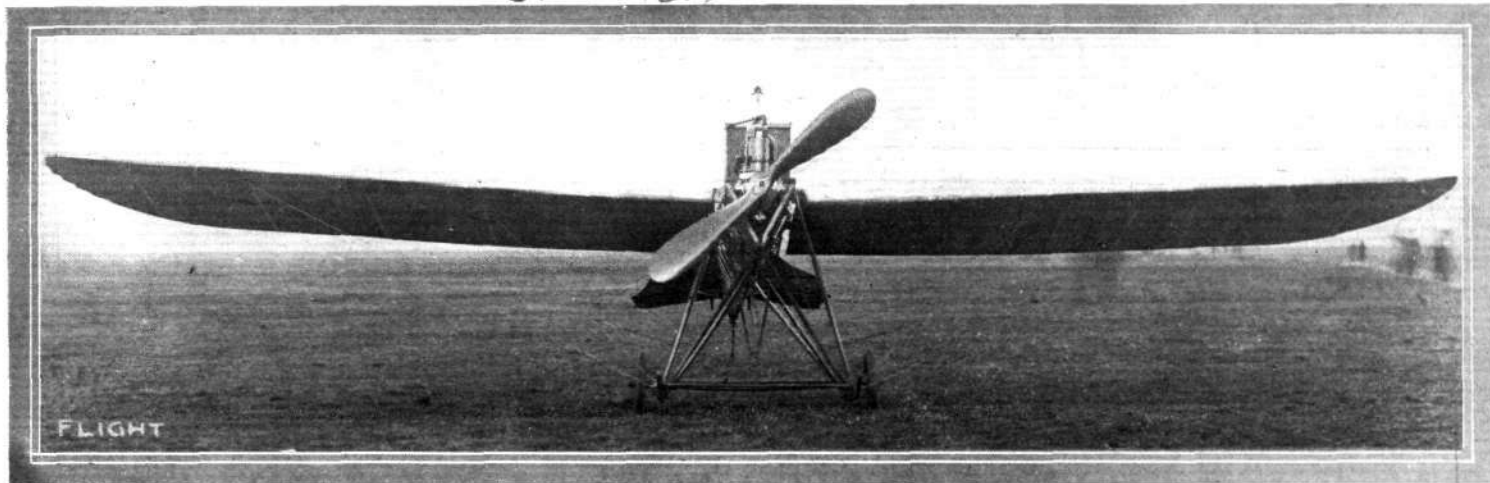
THE STAR MONOPLANE.

AMONG the many interesting features in the way of aeroplane design brought to light at the Olympia Show of last year, one of the most striking, it will be remembered, was the Star monoplane, and although as yet this machine has no very extended flights to its credit this can be partly accounted for by the fact that the designers, instead of adopting at once accepted methods with regard to tail construction and control, were desirous of evolving a tail that,

Star Box

together and constitute the elevator, as shown in the illustrations.

Though the Star monoplane in its present form may not show any marked difference in general appearance from many successful machines at the present day, it nevertheless displays, on closer inspection, so much originality of construction as well as of sound workmanship that a short description will doubtless be of interest.



View of the Star monoplane from in front.

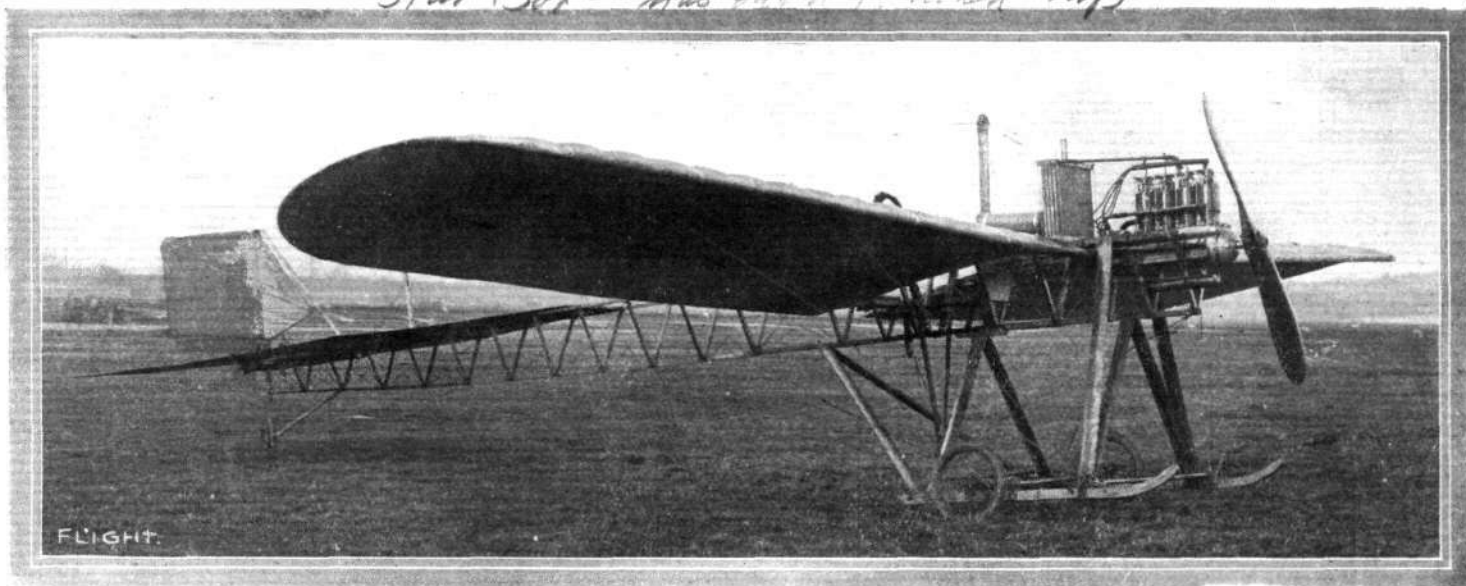
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besides performing the usual functions of elevator and rudder, would also be capable of maintaining lateral stability.

To this end experiments were carried out with a cross tail having four movable members of diamond shape, two being pivoted vertically on the stern post and two on a horizontal spar at right angles to it. When either pair of planes were deflected in unison, the effect was of course precisely that of a rudder or elevator respectively. But

For the body of the machine a triangular girder form of construction has been adopted. This has also been made in two sections, so that the machine can be taken to pieces for transport; the joints occur some 3 ft. behind the main planes. An accompanying sketch shows the construction of this joint in detail; it consists of channelled fish-plates fixed permanently to the fore part of the girder, which constitutes the body proper of the machine. These fish-plates

Star Box - has been touched up



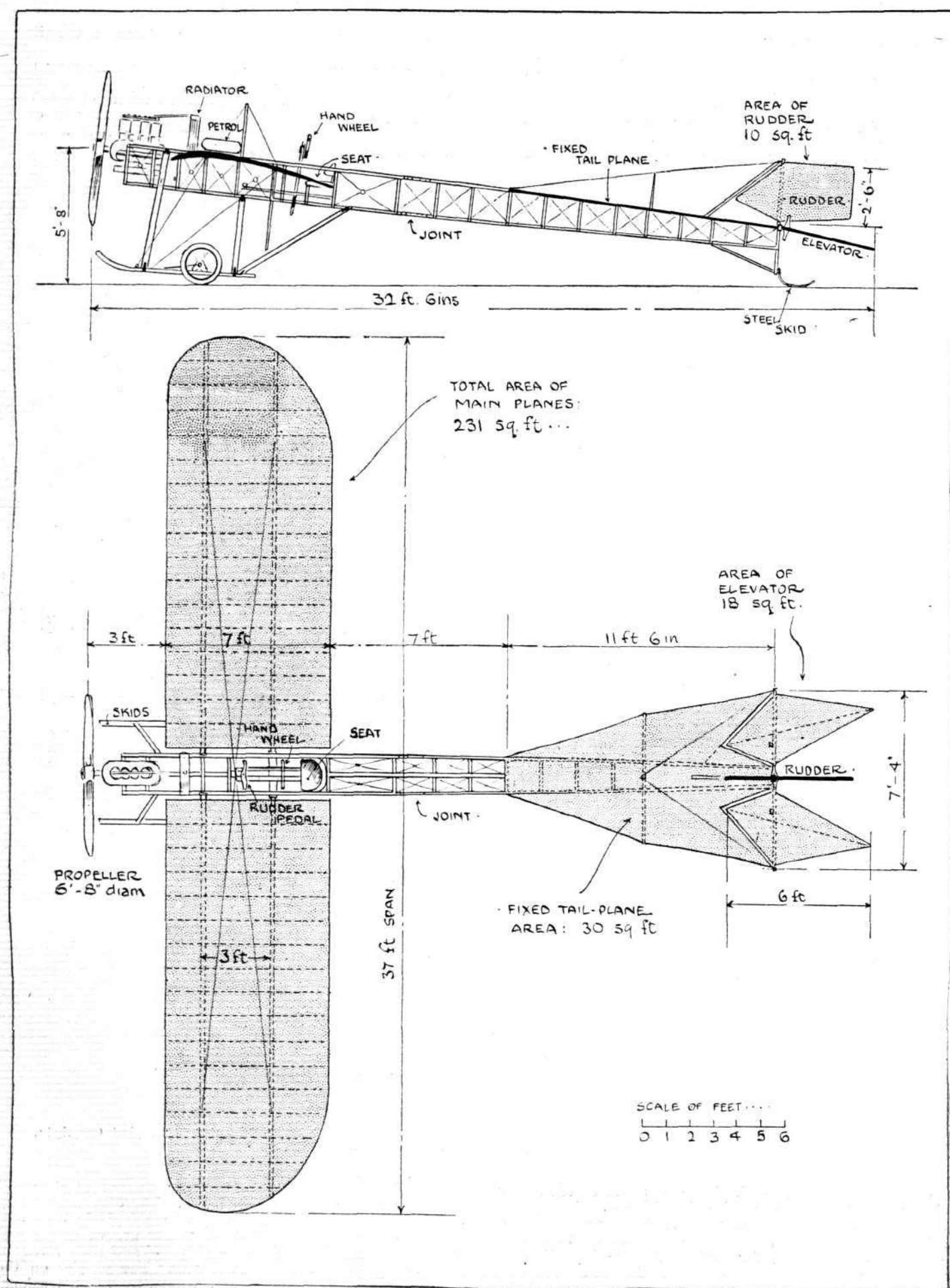
General view of the Star monoplane.

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the control system was such that one plane of each pair could be operated in the opposite direction to its fellow, and it was hoped by this means to create a twisting action along the longitudinal axis of the machine and thereby to correct those lateral deviations, for which recourse is ordinarily made, in monoplanes, to wing warping. Actual experiment, however, has led to the substitution for this system of the simple rudder and elevator control. Two of the diamond-shaped planes are retained but they now work permanently

thus provide a kind of socket for the reception of the small spars of the aft portion of the frame. The diagonal bracing of the main section of the body is particularly neat and worthy of notice, for the wires, which are of substantial gauge, are cut in the centre of each panel and their threaded ends engage with a small steel ring. The nipples on the ends of the wires thus serve as a means by which tensional adjustment can easily be made.

The main spars of the wings, which are set at a slight

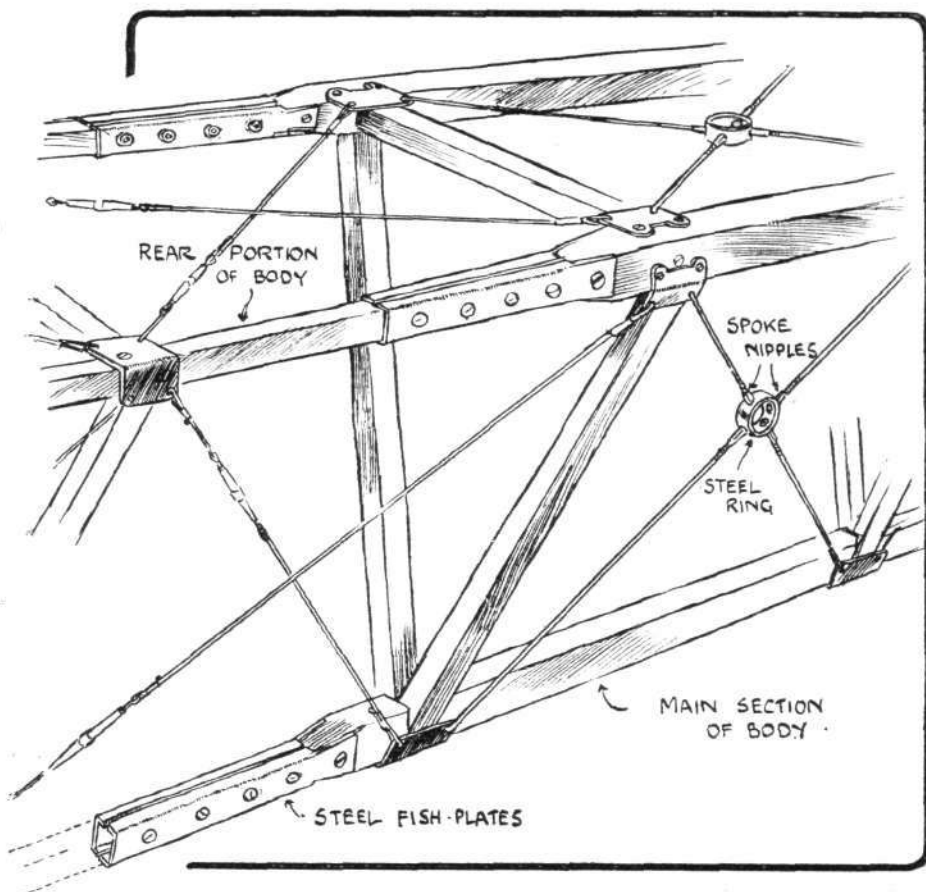


THE STAR MONOPLANE.—Plan and elevation to scale.

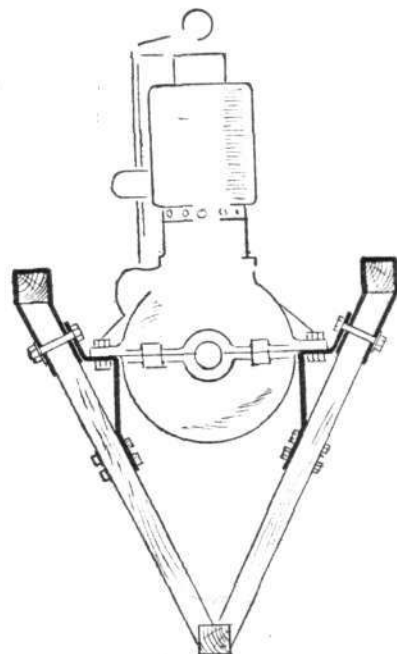
dihedral angle, are rather unusual in that they are not solid, but are built up of two lengths of American white wood placed one over the other and separated by a few inches. On the inner end of the leading spar an aluminium socket is fitted, which receives and is bolted to a rectangular lug of the same metal attached to the main girder. The rear spar

admit the triangular fore parts of the diamond-shaped elevating planes. The arrangement of these planes in this way is presumably intended to place the members in question more or less in equilibrium about their axes of support. It would be interesting, however, to know something more of the effect of an entering edge of this form and also of the effect of the orifice in the tail plane through which the air deflected by the fore part of the elevator necessarily has to flow.

The control system of the machine is, as may be observed from one of our sketches, commendably free from complication; a lever is pivoted on the lower member of the body im-



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Sketch illustrating the joint in the main frame on the Star monoplane, and also the system of wire bracing.

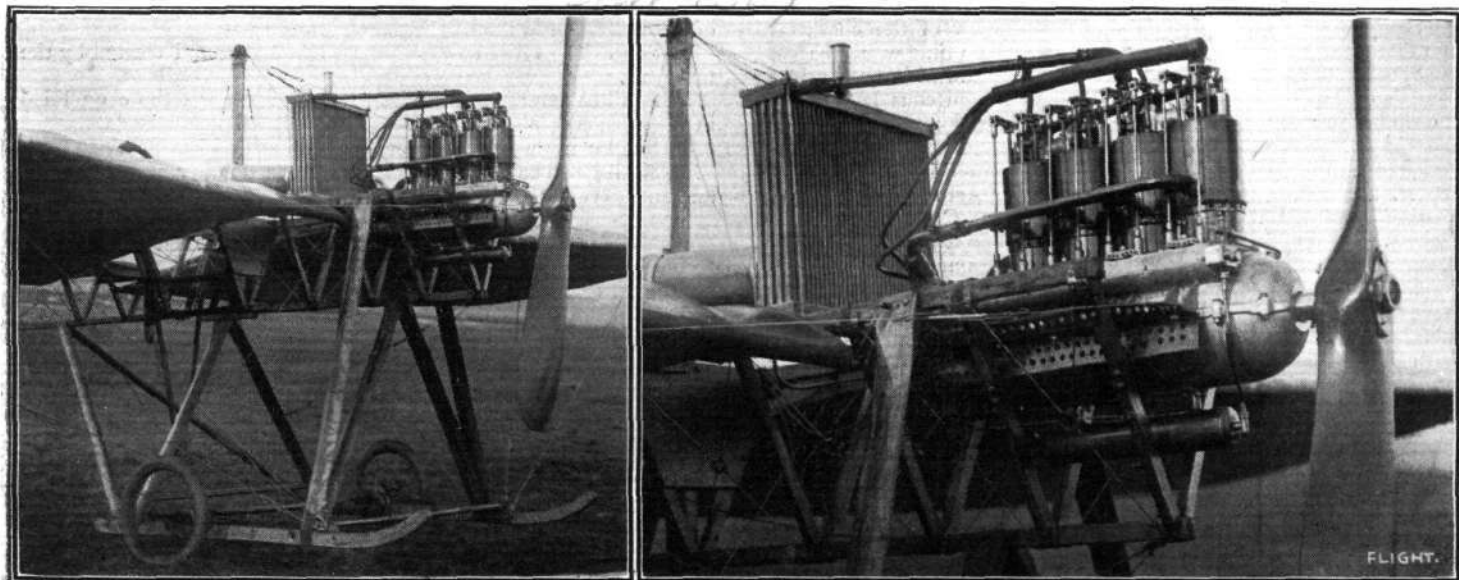


"Flight" Copyright.
Sketch illustrating the steel engine bearers on the Star monoplane.

is hinged to a strong steel channel, which being fixed at both ends to the body, incidentally contributes to its rigidity.

The main planes are double-surfaced and in plane form resemble those of the Blériot. Their span is 37 ft. and their maximum camber approximately 5 ins. The span of the tail is 7 ft. 4 ins. across the maximum dimension, and is of the flat non-lifting type. It will be noticed, on reference to the plan of the machine, that the tail plane is recessed to

mediately in front of the pilot's seat. At its upper end this lever carries a hand-wheel, by rotating which the wings may be warped through the agency of a small sprocket-wheel, chain, and suitably arranged wires. Moving the control-lever as a whole forwards or backwards operates the elevator. There is no sideways movement to this lever, the operation of the rudder being obtained by the control of a pivoted cross bar supporting the pilot's seat.

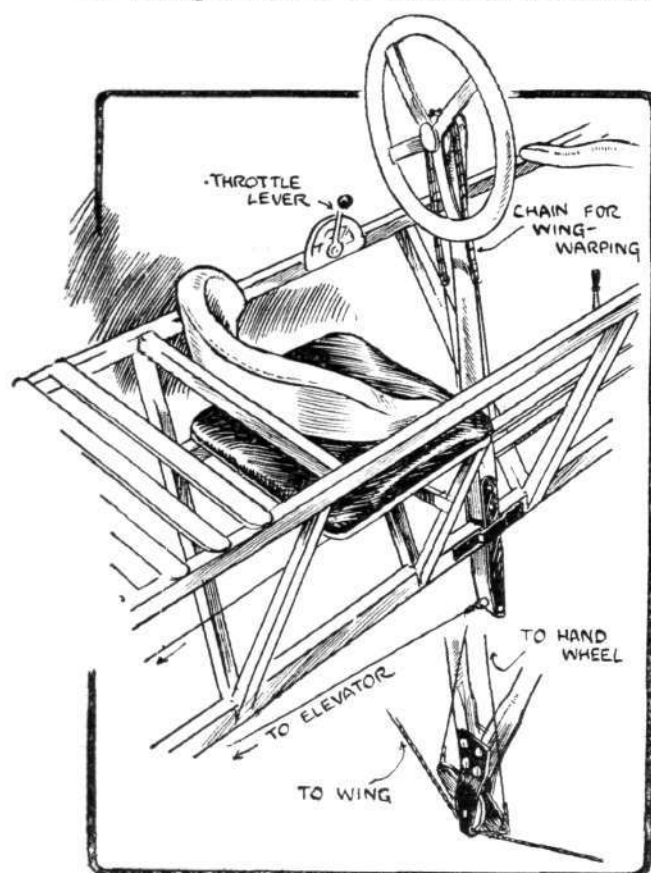


Views illustrating the engine and carriage of the Star monoplane.

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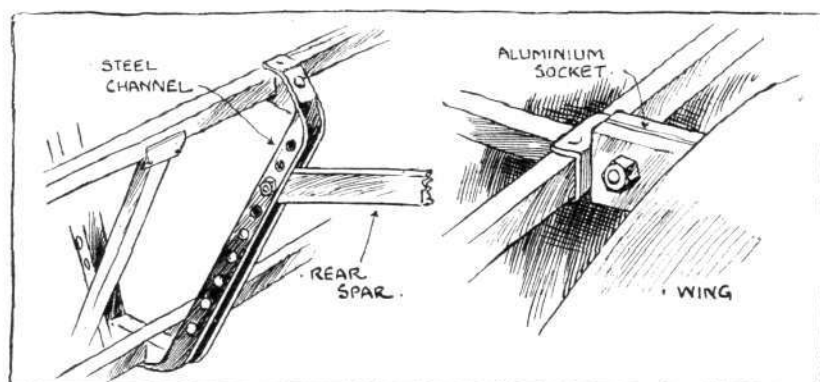
A 4-cyl. 40-h.p. Star engine, weighing 182 lbs., and driving a 6 ft. 8 in. Clarke propeller, constitutes the power plant. Pressed steel bearers of a special channel section support the engine and are bolted to the forward struts of the body. The consequent strain on these members, however, is con-

the A principle and is a very rigid construction. It carries a light axle, by means of which the machine is supported on two pneumatic-shod wheels. The ends of the skids of the under-carriage are laminated to give greater flexibility in the event of an awkward landing. The axle itself is attached



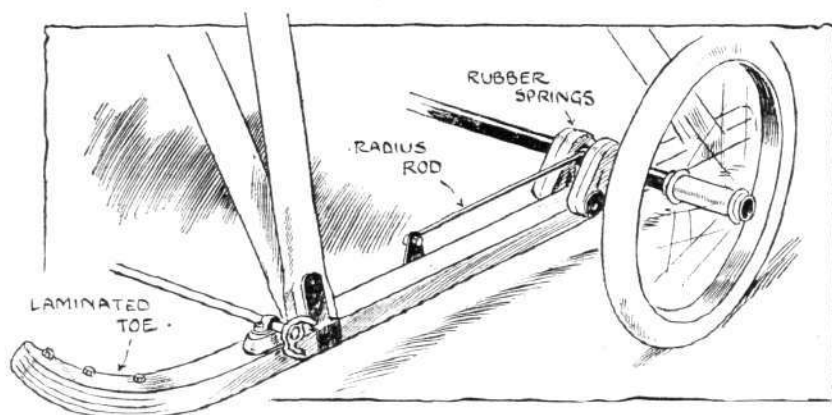
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Sketch illustrating the control on the Star monoplane.



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Sketches illustrating the wing attachment on the Star monoplane.



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Sketch illustrating one of the skids on the carriage of the Star monoplane.

siderably reduced by an ingeniously arranged series of small clips embracing the upper spars at the strut joints. Reference to an accompanying sketch will show how these clips really constitute a sling-mounting of considerable strength, but very small weight. The ash under-carriage is built up on

to the skids by rubber springs and light steel tubular radius-rods. At the base of the rudder-post a short length of flat steel spring is fitted to form a simple tail skid. It is pivoted so as to facilitate the tail movement when manœuvring the machine on the ground.

THE AERONAUTICAL SOCIETY—

A NEW ERA IN SIGHT.

At the end of our report of the recent meeting of the members of the Society, we ventured the opinion that in view of the character of the meeting and its indeterminate ending, no time would be lost in adjusting the technical difficulties of procedure which had arisen—and so it has proved to be. Replying to a courteous letter from the Committee of Inquiry, in which was enclosed for consideration the Committee's report and memorandum, and suggesting a small conference to discuss any differences of opinion arising out of the report, the members of the Council of the Aeronautical Society at once appointed three of their number, viz., Col. J. E. Capper, Col. J. D. Fullerton, and Major Baden-Powell, to meet three members of the Committee of Inquiry. At the same time the Council tendered their thanks to the Committee for the great trouble they have taken in the preparation of their report. This is a very healthy step in the right direction, and there should be no difficulty whatever, with this spirit in the air, in all working together with but one object in view—the placing of the Society upon a sound basis, with the power and sinews of war to carry out a strong campaign for the furtherance of the scientific side of aviation.

Indeed no time has been lost, for the Conference duly took place on Monday, June 26th, when we learn that an agreement was obtained on practically every point at issue. The policy of give and take resulted in the amendment there and then of the memorandum of suggested by-laws that accompanied the report of the Committee of Inquiry, without, however, affecting any of the vital principles on which it is based.

These principles, which were accepted by the last general meeting of members, are to the effect that the Society—

1. Shall be governed by a Council nominated and elected by the members.
2. Shall have a technical side, to which none but those qualified in the science of aeronautics shall be admitted.
3. Shall continue to encourage the support of lay members.
4. Shall be so constituted as to limit the liability of members to amounts covered by their subscriptions.

The by-laws suggested by the Committee of Inquiry provide for the election of Fellows, Associate Fellows, and students on the technical side, and also provide for the extension of the lay membership to include Associate Members having limited privileges at a reduced subscription. Now that the existing Council and Committee of Inquiry are thoroughly in accord on the matter, it only remains to put the machinery in motion for giving effect to the intended reform in the proper legal way. This will almost necessarily involve a few weeks' delay, and in the interim those interested cannot do better than make up their minds to join the Society forthwith, for there is likely to be a considerable pecuniary benefit to those on the Society's roll at the time of the inauguration of the new régime. It is, moreover, only proper that all those interested in aeronautics should join the Aeronautical Society, for it is officially recognised, under agreement with the Royal Aero Club, as the "paramount scientific authority on aeronautical matters." The Secretary's offices are at 53, Victoria Street, S.W.

THE AIR BATTALION.

THE Army Council have issued provisional regulations for the guidance of the recently-formed Air Battalion. The new unit is regarded by the Army Council as one of the most valuable means of obtaining information at the disposal of the commander of an army. It will not, however, replace other means of acquiring information, such as cavalry and agents, but will be used in conjunction with such services. The Air Battalion is to be so distributed that the units may not only be placed in the best positions to obtain information, but to co-operate with the other arms, and especially with the cavalry, in this all-important service.

The manner in which reconnaissance is to be carried out is to be left generally to the discretion of those who will actually undertake the duty. It is considered that there is less risk from positions behind rather than in front or on the flank of the enemy when seeking information, as the enemy's dispositions will probably have been made with a view to concealment from observation from the front and flanks rather than from the rear, whilst for fear of damaging his own troops he may hesitate to fire on vessels sailing over the rear of his columns. Vessels, also, when so placed may escape fire through being mistaken for friendly aircraft. The presence of troops, if in the open, can be observed in clear weather at an altitude of 5,000-6,000 ft., within a radius of four to six miles from the aeroplane or dirigible. When nearer the earth objects will be rather more easily distinguished, but are a shorter time in view, and the area is restricted.

Dirigibles, it is stated, will be exposed to considerable danger from artillery fire when lower than 4,500 ft. or within a range of 5,000 yards, and from rifle or machine-gun fire when at a height of less than 3,500 ft., or at ranges under 2,000 yards. Against aeroplanes it is thought that the fire of field artillery will rarely be

effective at 4,500 ft. or at a range of 4,000 yards and upwards, whilst reasonable security from the fire of small arms may be expected when 3,000 ft. from the earth or at ranges of 2,000 yards and over. High speed, movements in curves, and frequent changes of direction and elevation are suggested as means to reduce the probability of being shot. Concealment in the clouds, if possible, when approaching the enemy, is also another useful hint.

For transmission of intelligence from dirigibles wireless telegraphy, signalling, or carrier pigeons can be used. There are difficulties in conveying messages from aeroplanes by signal which can be overcome by the use of a motor car proceeding to some suitable locality where a packet can be dropped as the machine passes overhead, and this can be then conveyed to the commander. Captive balloons and kites are warned not to be used for any length of time within 5,000 yards of the enemy's artillery, and good cover is necessary for the balloon's descent. In normal conditions of ground and weather a radius of four to six miles can be held under observation from a captive balloon or kite, whilst the effect of artillery fire can be observed at a distance of 7,000 yards, or even further in the case of heavy artillery.

In deciding whether it is advisable to open fire on airships the probability of escaping observation if fire is reserved is to be considered. Special observation parties of men skilled in distinguishing between friendly and hostile craft might be detailed to watch for the enemy's machines and give warning to the artillery and machine-gun commanders, who will be prepared to fire much in the same manner as against moving targets on land.

On Tuesday Col. Seely, in the House of Commons, informed Mr. Ashley that the whole question of extra pay to be granted to officers of the Air Battalion was receiving consideration.



AN OBJECT LESSON IN MOBILITY.—An all-British "Valkyrie" military monoplane on its own wheels passing the Marble Arch en route from Hendon flying grounds to Brighton last week, where arrangements for exhibition flights have been made. In this manner the Valkyrie military design can travel anywhere with freedom, and the planes, which are attached to the sides, can be fitted in a few minutes, the machine then being in complete flying order.

AVERAGE JULY WEATHER.

By T. F. MANNING.

THE average weather of July appears to be slightly less favourable for flying than that of June. We cannot, however, make an accurate comparison, as statistics are not available of those gusty days which seem to be the most dangerous to the airman. Gales, thunderstorms, rainfall, and rain-days increase more or less, but still the best the year can offer is the period of which July is the middle, beginning in May and ending with September.

Thunderstorms are now at their maximum, the worst weeks in the year being the first and third weeks of this month. July has one-fourth of the whole year's thunderstorms, and they are fully thirty per cent. more numerous than in either June or August. It is well to remember that between two and five o'clock in the afternoon is the period of the twenty-four hours when this event is most likely to happen. Probably no other weather phenomenon is so uncertain, for while we may have many thunderstorms some years, the whole month passes without one in other years. But the average for July is approximately three.

Gales begin to increase from their June minimum, but not until the last week of September is the increase of any importance. On the other hand, the third calmest ten-day period of the year occurs between July 15th and 24th.

The rain-fall figures rise and we have the Lammas floods. This, however, does not mean any great increase of wet days, for the falls are usually associated with thunder and are short-lived, but heavy while they last. Of 94 heavy rainfalls during sixty-five years no fewer than 18 (one-fifth of the whole) occurred in July; and of seven abnormally heavy falls no less than four are recorded for this month. From the 19th to the 27th is usually the wettest period, and, in the past, the following days have been noted for heavy rainfalls—July 11th, 14th, 23rd, 26th and 30th. The average number of rain-days is 12½, but the actual number has varied from two to twenty-six.

Fogs sink to a minimum. From June 20th to July 21st is the least foggy period of the year. Then an increase sets in, at first slight, but gradually increasing until the maximum is reached in November.

No fall of snow has been recorded for July, and hail reaches the lowest figure for the year in this month and August, the average being only one hailstorm each month in seven years.

There are somewhat more cloudy days than in June, but these are of medium cloudiness; and entirely overcast or very cloudy days are less numerous.

July is the year's hottest month. The mean temperature is more than three degrees above that of June, and usually we have a very warm period from the 12th to the 15th, which generally ends in rain.

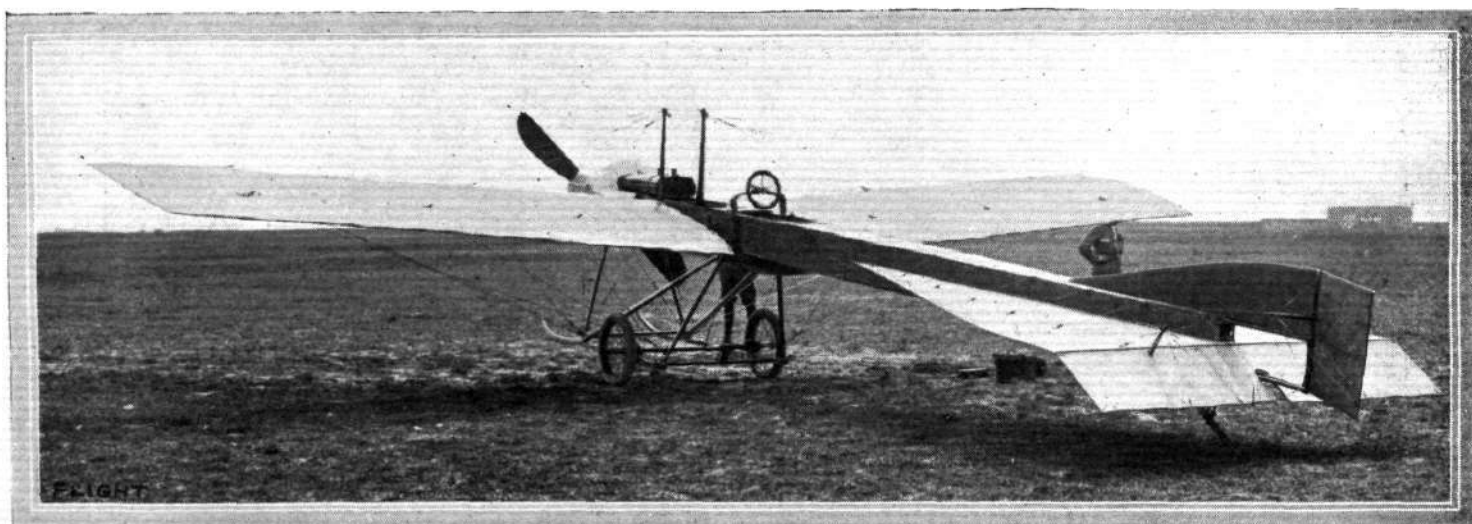
As compared with June, this month shows the following changes:—

	June.	July	June.	July
Ten years' gales	7½	9	Hours of sunshine	
" snowfalls	0	0	in the month	196 208
" fogs	7½	6½	Average rainfall	2'03 in. 2'40 in.
" hailstorms	3	1½	Mean temperature	59'4° 62'7°
" thunder	20	27½	Degree of humidity	73'6 72'8
Rain days	116	124		

Table of Weather Phenomena in July.

The figures show the number of each event in one hundred years.

Day.	Gales.	Fogs.	Hail.	Thun- der.	Rain Days.	Mean Temp.
1 ...	3	1	—	7	41	61'3
2 ...	4	1	—	7	40	61'4
3 ...	5	2	1	9	40	61'7
4 ...	2	2	—	6	33	61'9
5 ...	3	1	—	9	38	62'1
6 ...	2	1	—	17	42	62'2
7 ...	2	1	1	10	41	62'1
1st week ...	21	9	2	65	275	—
8 ...	4	1	—	7	41	62'0
9 ...	3	1	—	5	48	62'0
10 ...	2	2	—	7	40	62'1
11 ...	4	1	—	7	34	62'3
12 ...	3	2	—	8	35	62'6
13 ...	4	1	1	4	32	62'9
14 ...	3	2	1	12	28	63'1
2nd week ...	23	10	2	50	258	—
15 ...	1	2	2	11	34	63'2
16 ...	2	3	—	11	47	63'2
17 ...	2	1	1	11	35	63'1
18 ...	4	1	1	7	41	63'0
19 ...	3	3	—	10	47	63'0
20 ...	1	2	1	12	40	63'0
21 ...	4	1	1	8	36	63'0
3rd week ...	17	13	6	70	280	—
22 ...	4	4½	—	7	44	62'9
23 ...	2	6	—	13	47	62'8
24 ...	5	3½	—	8	51	62'6
25 ...	5	1	—	12	41	62'4
26 ...	1	2	—	7	50	62'3
27 ...	2	2	1	9	43	62'3
28 ...	1	3	1	5	44	62'3
4th week ...	20	22	2	61	320	—
29 ...	4	5	1	9	40	62'3
30 ...	3	3	1	12	34	62'3
31 ...	1	2	—	8	31	62'3



One of the new Deperdussin Monoplanes which were built to take part in the European Circuit.—It will be noticed that the square fuselage is entirely cased in, while another special feature is the long skids which project out in front to protect the propeller.

The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

Committee Meeting, June 20th.

A MEETING of the Committee was held on Tuesday, June 20th, when there were present:—Mr. R. W. Wallace, K.C., in the Chair, Mr. Griffith Brewer, Mr. Ernest C. Bucknall, Col. H. C. L. Holden, C.B., R.A., F.R.S., Prof. A. K. Huntington, Mr. C. F. Pollock, and Harold E. Perrin, Secretary.

New Members.—The following new members were elected:—Arthur Haynes Aitken, George Efford Bignell, Frank R. Otter, H. J. Preston, Lieut. Charles Edward Henry Rathborne, R.M.L.I., Lieut. Thomas Henry Seab-Montefiore, R.F.A., Edward Howard Secker.

Aviator's Certificate.—The following Aviator's Certificate was granted:—

95. Capt. F. H. Sykes.

Committee Meeting, June 27th.

A meeting of the Committee was held on Tuesday, June 27th, when there were present:—Mr. R. W. Wallace, K.C., in the Chair, Mr. Griffith Brewer, Mr. Ernest C. Bucknall, Mr. John Dunville, Prof. A. K. Huntington, Mr. J. T. C. Moore-Brabazon, Mr. Mervyn O'Gorman and Mr. C. F. Pollock.

New Members.—The following new Members were elected:—Alexander Drew, Harry Stanley Hawley.

Aviators' Certificates.—The following Aviators' Certificates were granted:—

96. G. Higginbotham.

97. Herbert Stanley-Adams.

98. Lieut. J. W. Pepper, R.A.

99. Henry Salmel (subject to sanction Aero Club of France).

Gordon-Bennett Aviation Race.—Mr. D. Graham Gilmour was appointed the third of the three representatives for Great Britain, the following to be the reserves:—O. C. Morison, James Radley, and James Valentine.

GORDON-BENNETT AVIATION CUP.

THE race for the Gordon-Bennett Aviation Cup will take place at the Royal Aero Club Flying Grounds at Eastchurch, Isle of Sheppey, to-day, Saturday, July 1st, 1911, and is timed to start shortly after 11.30 a.m.

The race is over a distance of 150 kiloms., roughly 94 miles, and will be on a circuit of about 3 to 4 miles.

The following representatives will compete:—

America—

C. T. Weymann (Nieuport monoplane).

France—

A Leblanc (Blériot monoplane).

E. Nieuport (Nieuport monoplane).

M. Chevalier (Nieuport monoplane).

Great Britain—

A. Ogilvie ("Baby" Wright biplane).

G. Hamel (Blériot monoplane).

D. Graham Gilmour (Bristol monoplane).

Reserves.—O. C. Morison, J. Radley and J. Valentine.

Railway Arrangements.—A special train at reduced fares will leave Victoria (South Eastern and Chatham Railway) at 9.30 a.m., calling at Herne Hill at 9.40, and arriving at Eastchurch at 11.10.

Admission of Members.—Members of the Club will be admitted free to the members' enclosure on production of their membership cards. These facilities apply to members only, and friends accompanying them must pay for admission. The price of admission to the members' enclosure is 5s.

Motor Cars.—An enclosure will be specially reserved for motor cars, giving an uninterrupted view of the whole Race. The charge for motor cars, including the driver, will be 10s. per car.



PROGRESS OF FLIGHT

Aero Models Association (South-Eastern Branch).

AN open model flying meeting was held, under the auspices of the South-eastern Branch of the Aero Models Association, on the Golf Links, Mitcham Common, on June 17th. The meeting was well attended by members and their friends, who were rewarded by witnessing some exceptionally long flights.

The competition was open to models of any size, and there were three events:—(a) For models rising from the ground; (b) Duration; (c) Distance.

Refreshments.—Arrangements have been made with the Army and Navy Stores, who have erected large marquees, where luncheons, teas, and other refreshments can be obtained.

Dinner to the Competitors.—An informal dinner will be given to the competitors at the close of the race, when the cup will be presented to the winner. This dinner will be held in a special marquee erected on the ground, and tickets, 5s. each, can be obtained from the Secretary's Office on the ground. In order to meet the convenience of those members returning by rail, a special train will leave Eastchurch at 10 p.m.

"Daily Mail" Second £10,000 Prize.

The following entries have been notified:—

- | | |
|------------------------------------|-----------------------------------------------|
| 1. André Beaumont (Blériot) | 19. Lieut. R. A. Cammell, R.E. (Blériot) |
| 2. Gustav W. Hamel (Blériot) | 20. H. J. D. Astley (Universal Aeroplane Co.) |
| 3. — (Blériot) | 21. L. Breguet |
| 4. James Radley | 22. L. Breguet |
| 5. C. Grahame-White | 23. Antoinette, Ltd. |
| 6. C. H. Greswell | 24. Vedrines (Morane-Borel) |
| 7. Robert Loraine (Nieuport) | 25. Verrept (Morane-Borel) |
| 8. S. F. Cody (Cody) | 26. — (Morane-Borel) |
| 9. James Valentine (Deperdussin) | 27. Lieut. J. C. Porte, R.N. (Deperdussin) |
| 10. Pierre Prier (Bristol) | 28. A. V. Roe and Co. |
| 11. M. Tabuteau (Bristol) | 29. Stuart A. Hirst |
| 12. M. Tetard (Bristol) | 30. H. Wynnmalen (H. Farman) |
| 13. E. C. Gordon-England (Bristol) | 31. John F. Benton |
| 14. O. C. Morison (Bristol) | 32. C. T. Weymann (Nieuport) |
| 15. D. Graham Gilmour (Bristol) | 33. Handley Page, Ltd. |
| 16. C. P. Pizey (Bristol) | 34. Sanders Aeroplane Co. |
| 17. B. C. Hucks (Blackburn) | 35. Howard T. Wright! |
| 18. Lionel Hollands | |

The start will be made from Brooklands on Saturday, July 22nd, 1911, at 3 p.m., and competitors will alight at the Hendon Aerodrome. The aeroplanes will remain at Hendon on the Sunday and the start for Harrogate will be made at 4 o'clock on the Monday morning. Special arrangements for the members of the Club have been made at Brooklands and Hendon whereby members will be admitted free on production of their membership cards. These facilities apply to members only, and any friends accompanying members must pay for admission.

The Manville £500 Prize.

On Saturday, June 24th, at Brooklands, C. Howard Pixton, on a Bristol biplane, fitted with a 60-h.p. E.N.V. engine, made a flight of 26 minutes with a passenger. This flight, together with time allowance, counts as 31 minutes. The weight of passenger and pilot was 300 lb. Mr. Pixton's total in this competition is now 111 minutes, and the only other flight so far recorded is 80 minutes by S. F. Cody on June 5th.

The next date in this competition is Saturday, July 15th, 1911.

Balloon Race at Hurlingham.

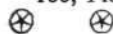
Owing to bad weather, the Perimeter Race for the cup presented by Mr. A. Mortimer Singer, which was to have been held at Hurlingham on Saturday last, the 24th ult., was abandoned.

The next balloon race will take place at Hurlingham on Saturday, July 15th, 1911, and will be a long distance race for the Hedges Butler Challenge Cup. Rules can be obtained from the Secretary.

HAROLD E. PERRIN,

Secretary.

166, Piccadilly.



ABOUT THE COUNTRY.

In the first event Mr. George Rowlands was awarded the first prize, his machine, after rising in a space of 2 ft., flying for 169 yards.

Mr. S. L. Cox won the Duration Contest in a very strong wind, with a flight of 67 secs.; and Mr. C. B. Ridley the Distance Race, with a flight of 542 yds., Mr. C. P. Bragg Smith coming second, with a flight of 370 yds.

Will members and others kindly note that a competition of a similar nature will be held on the Golf Links, Mitcham Common,

on Saturday, July 29th, further particulars of which will be published in due course. Hon. sec., Mr. W. H. Ransley, 9 Aspinall Road, Brockley, S.E.

Birmingham Aero Club (165, HAMPTON STREET).

THIS club has given its patronage to a model flying competition at Small Heath Park on July 8th. Cash to the value of £3 has been given to the committee to allocate in prizes at their next meeting.

Mr. H. Wood and his party have now got their glider going in earnest. Mr. Platts and his party are finishing some modification of the original design of their glider and hope to have it in the air next week. Mr. Hill and his party are fitting a rotary motor to their Belmont glider, and hope to have it ready by the end of this month.

Clapham Aero Club (140, MANOR STREET, CLAPHAM, S.W.).

A COMPETITION was held at Wimbledon Common on the 22nd

ult., and of the ten who took part, Mr. Houlberg secured 1st prize with 67 points out of 110, and Mr. Slatter second with 65. Unfortunately the weather conditions were not at all suitable for flying, but very fair success was obtained. Mr. Lander has just completed a glider of the Valkyrie type.

Parkside Aero Club (2, EDBROOKE ROAD, PADDINGTON).

INTENDING competitors are reminded that July 4th is the last day of entry for the duration competition at Parkside, Harrow Road, on July 8th. Judges, Messrs. T. W. K. Clarke and T. O'Brien Hubbard. 1st prize, P.A.C. Challenge Cup and silver medal; 2nd, silver medal presented by Mr. T. W. K. Clarke; 3rd, P.A.C. silver medal; 4th, pair propellers, any size up to 12 in. Entrance fee, 1s. 6d. only.

SCHOOL AERO CLUB NOTES.

By ROBERT P. GRIMMER, General Secretary, British Federation of School Aero Clubs.

A WORD about freak models. It seems to me that the great use of the model aeroplane is to demonstrate some theory that may be applicable to the full-sized machine. I grant that scale models make unsatisfactory flyers, if, indeed, they fly at all; but that fact should not prevent aero models from at least approximating in general dimensions to full-sized aeroplanes. If my readers, in order to win prizes in competitions, feel tempted to construct, for example, a machine 16 ins. in span, with two 12-in. screws, I can only say "Don't." They may have the empty honour of winning the contest, but they will certainly have done nothing to advance the science of aviation. The same warning applies also to model makers, who, to drive a 3-oz. machine, employ 2 ozs. of rubber, totally oblivious to all principles of efficiency. The best machine is not necessarily the one that flies farthest. Let them rather aim at securing general efficiency, automatic stability, and a better type of propeller. Personally, I am strongly opposed to the freak machine, which, after all, is nothing but a useless toy.

The British Federation of School Aero Clubs has a truly herculean task to perform. Against it are arrayed the forces of apathy, indifference, and determined opposition; its supporters are at present few and scattered. The ground it has to cover is wide in extent; it stands alone in its work of converting the younger

generation to the cause of aviation. The future of that great science rests with the coming race, and the coming race can only be influenced by the school aero club. May I appeal to all those interested in this great and indeed national movement to subscribe to the funds of the Federation? A campaign of propaganda work is being inaugurated, and a prize fund has been opened. Lectures and demonstrations have to be arranged, and the affiliated clubs are at present too few in number to lend much material assistance. Every donation will be gladly acknowledged, and should be sent either c/o FLIGHT or direct to me at 15, Arlington Road, Surbiton.

Do my readers know that for the sum of £5 it is possible to construct an efficient man-carrying glider, with which real flights can be made from any convenient hill? It is to be regretted that more numerous experiments have not been made with gliders, as it is by no means improbable that some day man-driven flight will be accomplished through this means. If the old chroniclers are to be believed, a mediæval aviator, Oliver the Monk, flew a distance of over a quarter of a mile when launched from a steeple 100 ft. in height, which seems something rather better than a mere glide. Jean Baptiste Dante is alleged to have performed a similar feat above Lake Thrasymere in the fifteenth century.

Brighton and Shoreham Aerodrome Opened.

THE official opening of the Brighton and Shoreham Aerodrome was carried out on the 20th ult. by the Mayor and Mayoress of Brighton, who were accompanied by the Mayors of Hove and Worthing. The ceremony was preceded by a luncheon, at which the aims of the promoters were explained, and it was stated that the proposals include a clubhouse on the ground. The ground is about a quarter of a mile square, but surrounding it is a flat stretch of

country about a thousand acres in extent, free from trees, and eminently suited for flying purposes. Already a large number of hangars have been erected, and the arrival of the competitors in the European Circuit race on the grounds this week, from which point they "take off" for Hendon, should give the fine aerodrome a splendid send off. Brighton should be under a great obligation to the enterprising men who have thus given it, at this early stage, so important a chance in alluring aviators to the district.



BRIGHTON AND SHOREHAM AERODROME.—The party at the inauguration last week, outside one of the dozen hangars already erected upon this new flying ground. Reading left to right are, with straw hat, Mr. W. B. Gentle (Chief Constable of Brighton), Mayoress of Worthing, Mayor of Worthing, Mayoress and Mayor of Brighton, Mrs. Wingfield, Mayor of Hove, Mr. G. Arthur Wingfield (Chairman), Mrs. Horace Bell, Mr. J. T. Musgrave, and representatives of the Press. In front, two Misses Wingfield, Mr. W. Pettett (the Manager), and Sir Theodore Angier.

FROM THE BRITISH FLYING GROUNDS.

Royal Aero Club Flying Ground, Eastchurch.

SHEPPEY aviators have been more or less storm-bound during the past week, and have had to take advantage of the few brief spells of anything approaching flying weather which came their way.

On Tuesday evening (the 20th), during one such break, Lieuts. Gerard and Gregory each made flights in the vicinity of the grounds. The latter, carrying Mr. Travers as passenger, directed his attention chiefly to practising right and left-hand turns, banking, and *vol plans*, and he completed one right-hand turn of 360° in 15 secs. (by stop watch) at a height of about 100 ft. and a "banking" angle of some 45°, finishing at a higher level than whence he started.

On Wednesday morning early risers were surprised to hear the distant hum of a Gnome engine, but could discern nothing for some seconds to account for this. It was not long, however, before a machine was located approaching from the direction of Teynham, and as the machine drew nearer she was recognised as Short No. 38, which had been weather-bound at Brooklands since Lieut. Samson arrived there on the previous Friday. The pilot turned out to be Lieut. A. M. Longmore, R.N., who had undertaken the return journey, and which, despite a very treacherous wind, he brought to a safe conclusion.

On Monday, the 26th, Mr. Alec Ogilvie was out on the "Baby" Wright for a number of short flights during the afternoon and evening, when rather a puffy breeze was prevalent.

At 6 a.m. on Tuesday the hum of Mr. Ogilvie's N.E.C. engine was again heard, and he made two good flights of about half-an-hour each at some 800 ft. Mr. Ogilvie shows wonderful control over this miniature Wright machine, and it is hoped that, with decent luck, he will give a good account on behalf of Great Britain in the Gordon-Bennett Race. In the evening quite a lot of good work was got through by the Naval officers, Lieuts. Samson, Longmore, Gerard and Gregory, who all made several good flights on Short biplanes 34 and 38. One flight in particular by Lieut. Gregory was very meritorious, for carrying Mr. Whittaker as passenger, he flew across country at 2,000 ft. for well over 45 minutes, finishing with a splendid *vol plané* from 1,500 ft.

The Hon. Maurice Egerton was also out on Short No. 35, whilst Mr. Ogilvie was again practising for the Gordon-Bennett.

The Dunne monoplane was seen several times during the evening and made some good straight flights.

Brighton-Shoreham Aerodrome.

OWING to the very bad weather this week, nothing has been done in the way of flying, though the inventor of the Valkyrie has been down here all the week with a machine waiting for the first reasonable opportunity to get into the air.

Although nothing has been done in the way of flying great progress has been made on the ground itself in preparation for the large crowd which is expected to witness the arrival of the aviators in the great European Circuit on Friday of this week. During the last few days the grand stand and ten new hangars have been completed. Refreshment booths are in the course of erection, and the band stand is nearly complete.

Visitors to the aerodrome during the week, therefore, will be well catered for; they will be able to see exhibition flights every day by the Valkyrie, and the arrival and departure of those flying in the European Circuit, both on their way from Europe and on the return journey to France, which is down for to-morrow (Sunday).

Brooklands Aerodrome.

No flying was possible on Monday last week.

Mr. Pixton was out early on Tuesday on a new Bristol, which has been fitted with a 60-h.p. all-British E.N.V. for the Manville prize. The machine seemed in very good fettle, and carried a passenger with ease. Lieut. Watkins, on the Howard Wright, was taking Dr. and Mrs. Mawson for straight flights. During the evening the Bros. Pashley were out on the Sommer, and Mr. Fisher and Mr. Gordon Bell were flying the Hanriot.

Lieut. Longmore flew the Short biplane back to Eastchurch on Wednesday. Owing to a choked petrol supply he was forced to land at Walton Heath, but after putting matters right continued his flight and landed safely at Eastchurch. In the evening, Mr. Gordon-England, in spite of a nasty wind, flew two circuits on the Bristol.

Thursday was a blank day and it was not until towards evening on Friday that the wind lulled. Lieut. Snowden-Smith, Mr. Gordon England and Mr. Pixton were then all out for some time, Mr. Gilmour indulging in a little trick flying, the fact of his engine only running on five cylinders seemingly not worrying him in the slightest. Lieut. Reynolds took the Army machine out and flew for some time at an altitude of about 1,600 ft., whilst Mr. Fisher and Mr. Gordon Bell were out on the Hanriot. The latter takes his turns banked over to a nice angle and should make a good pilot,

given opportunity. Saturday was a Manville prize day, and, as usual, very windy.

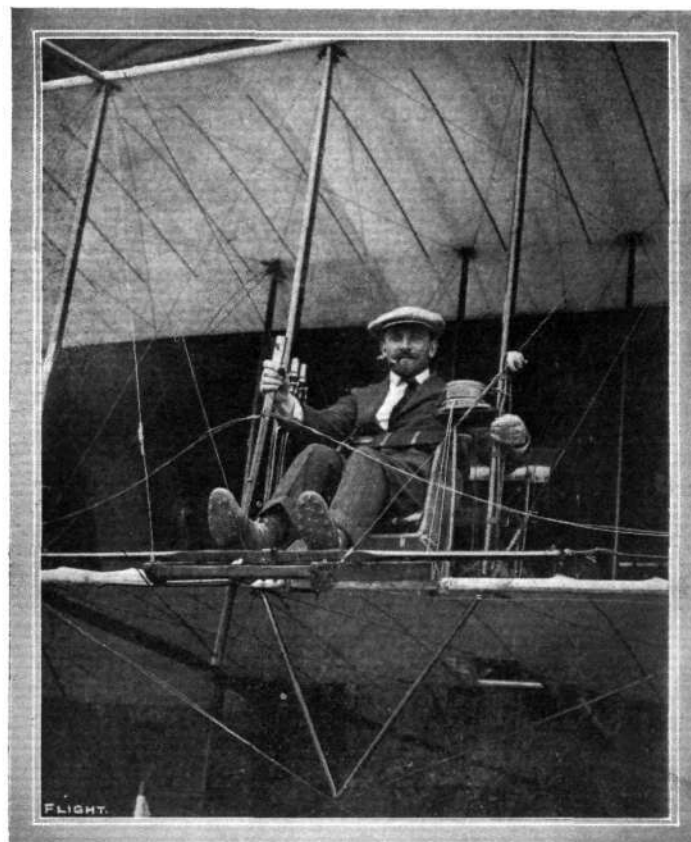
Mr. Pixton on the Bristol, with E.N.V. motor, put up a really magnificent flight of 27 mins. None of the spectators seemed to envy the passenger, one of the Bristol mechanics, his experience, as at times the machine dropped like a stone for a good 50 ft. Mr. Macfie brought out the Howard Wright, but the machine was unfortunately blown over while standing stationary on the ground, and the top left-hand plane was smashed.

Very windy weather prevailed all day Sunday, but towards the evening Lieut. Reynolds made a short flight, as also did Mr. Raynham, Mr. Fisher, and Mr. Gordon Bell.

No flying again on Monday, but on Tuesday Mr. Fisher and Mr. Gordon Bell were both out early, although they still found the wind very troublesome. Later on Mr. Noel brought out the Avro Farman, but managed to pancake it, breaking the undercarriage and propeller. Lieut. Snowden-Smith was out for a spin during the afternoon. Mr. Martin Rucker came out with the Rhomboidal, to which a 60-h.p. Green has now been fitted. Unfortunately he got muddled with his steering-control, and ran the machine across the ditch on to the track, doing a fair amount of damage. Mr. Pixton was out carrying several passengers. Mr. Fisher brought out the Hanriot, after which Mr. Gordon Bell took charge, and put up a good flight of 20 mins. at a height of 400 ft.

Avro School.—Monday, the 19th, was very windy, but Mr. Hunter made some steady flights, considering the state of the elements. Lieut. Blacker did his first circles in a most alarming way, climbing horribly on the first turn, then coming down the middle of the ground in front of the sheds. Leaving his turning very late he almost seemed to strike the cement track and shot up in the air, making a very sharp turn, climbing all the time. Then he dived down, but cleverly pulled up before he struck the ground and flew on for another circle. All the watchers felt relieved when he finally landed. Stanley Adams and S. V. Sippe also flew circles. Raynham and Louis Noel were up with the Avro-Farman; Noel also making some short flights on the Avro-Curtiss.

On Friday Hunter got in some straight flights, and Jenkins was



Lieut. Samson, R.N., on a "Short" biplane. He left East church flying grounds for Brooklands on Thursday week at 4.30 p.m., alighting at Horley for the night. Having replenished, he was off again on Friday morning, but missed his way and landed at Hawthorn Hill Racecourse, from there making a good flight, and arriving safely at Brooklands.

flying early on the Avro, A. V. Roe later taking a new pupil, Basil Brown, for straight flights on the Avro. Stanley Adams secured his certificate in easy style on the Avro, and Conway Jenkins flew for 45 mins., carrying a passenger for 20 mins. on the 30-h.p. Green Avro. Raynham took Basil Brown as passenger on the Avro-Farman.

Some interest was caused on Tuesday when the Avro-Curtiss, which has been built by Messrs. A. V. Roe and Co., was brought out. Mr. Ronald Kemp at his first attempt flew very well and came back in perfect style. Louis Noel made one or two rough landings, the onlookers being surprised to see the rigid wheel-base stand it so well. This machine, as well as an ordinary Avro biplane, is to be fitted with a float and tried in the North.

Hanriot School.—The school pilot took the machine out for a short flight on Friday last week, rising about 800 ft., after which Mr. Gordon Bell made a couple of ten minute flights, showing excellent control of the machine. Lieut. Manisty then did some rolling.

On Sunday, the only spell of flying weather was seized upon both by Mr. Fisher and Mr. Gordon Bell, putting in flights of about ten minutes each.

Mr. Fisher went out during a lull on Monday last, but found the wind very bad above 500 ft., where it was blowing about 30 m.p.h. and very gusty. On the following day Mr. Fisher was again out, and Mr. Bell made a fine flight of about 20 minutes, rising some 400 ft., and including several right-hand turns.

Lanark Aerodrome.

THE weather last week was very stormy and it was not till Friday that advantage could be taken of a lull. Mr. Forson then had the school machine out, while, in the evening, Mr. Ewen made two flights. Saturday was again bad, but, in the late afternoon, Mr. Ewen was able to give a short demonstration flight for the amusement of the visitors.

London Aerodrome, Collindale Avenue, Hendon.

Grahame-White School.—The weather throughout Coronation week was so abjectly miserable and unpropitious for flying that it is a great wonder there is anything to record at all. Clement Greswell and Hubert were booked to fly to Bristol and Birmingham respectively on Thursday, to deliver cinematograph films of the Coronation procession.

Unfortunately, the wind was exceedingly persistent at 30 miles an hour all day, and no flight could be attempted.

Friday, the 23rd, commenced with more rain and wind, but conditions moderated later in the afternoon, and Hubert turned out with the school Farman, making three good flights. On one occasion he rose to 700 ft., and flew off in the direction of Golder's Green. Greswell also came out with his Gnome-Blériot, and made a characteristic high flight.

Saturday and Sunday were days of enforced idleness, and it is doubtful if any flying would have occurred on Monday if it had not been that a photographer was anxious to obtain pictures illustrating tuition work that day. Several straight flights were undertaken by Paterson with the pupil Driver as passenger in a 25 mile an hour wind. To illustrate the qualified pupil, Driver took the machine over, and although he had only previously flown in a calm, he

made a good flight from end to end of the ground. On his return however things did not look so happy. He was blown rapidly towards the fence bordering the grounds, and to avoid it he turned sharply, banking heavily. For a second it looked as if he would catch the lower side of the "cellule" in the fencing, but to the relief of everyone he manoeuvred cleverly, and landing near the railway embankment "taxied" the machine back to the hangars, smiling happily.

On Tuesday the wind dropped late in the afternoon and Greswell appeared with his Gnome-Blériot and flew at 1,500 ft. in the direction of Barnet, following the Midland main line. In landing, after a magnificent glide to earth, a gust apparently caught him, and he touched earth heavily, damaging the chassis. He fortunately was unhurt. Hubert, who was flying the school Farman at the time, quickly descended on seeing the smash. He was much relieved to find his friend uninjured.

Salisbury Plain.

THE weather on Tuesday of last week was too rough for flying until the evening, when the Bristol School at once got to work. M. Jullerot on the military extension biplane made a good flight, including some very sharp turns. Mr. Fleming afterwards took over the machine, and, taking up a pupil as passenger, went for a cross-country flight, finishing up with a spiral *vol plané*. Mr. H. Busteed, who has now been appointed an instructor, made a good flight and landed well. The officers of the Air Battalion were out, Lieut. Cammel flying his Blériot, which is in good form after its recent overhauling; Lieut. Conner was testing a Howard Wright biplane, fitted with an E.N.V. engine.

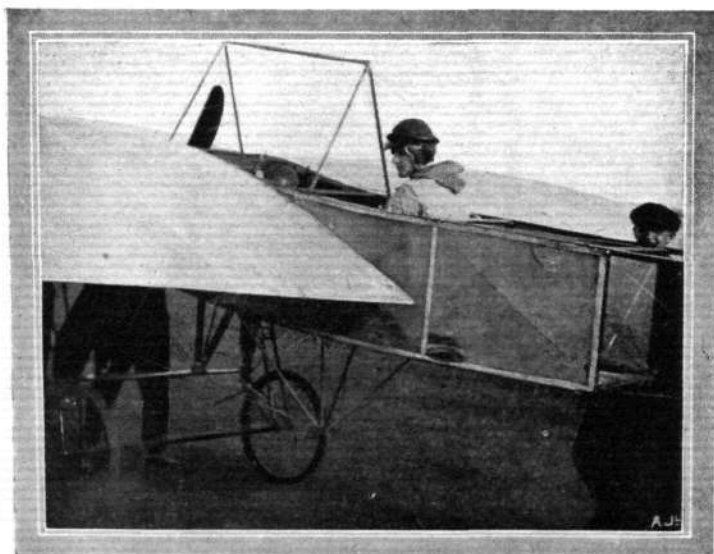
During the day Vusepuy arrived at the Bristol School to take away to France the military extension biplane that Jullerot flew from Bristol to Salisbury.

On Wednesday and Thursday no flying took place, but on Friday morning the Bristol School commenced early. Mr. Pizey, who has returned after a few days absence, took over a machine, flying in his old style at a great height, as also was Mr. Fleming. Lieut. Cammel was scouting around the plains on his Blériot and Lieut. Conner had the E.N.V. Howard Wright out, preliminary adjustments to the engine being attended to. Afterwards he mounted a Bristol military extension biplane and went for a good flight. In the evening the school Bristol was at work, and Messrs. Pizey, Jullerot, Fleming and Busteed all made trips. Lieut. Pepper, R.G.A., started off for his *brevet* but only finished half the course. Lieut. Conner was flying an extension biplane, and Lieut. Cammel was up on his Blériot. On Saturday the weather was too treacherous for flying; Sunday was equally bad, and Monday morning work at the Blériot flying school was confined to hangar erection of another machine. In the evening, M. Jullerot was out on the extension biplane, fitted with a Renault engine, this being the first trials with this motor. Mr. Pizey had a try, and afterwards changed over on to another machine, on which he went for a cross-country flight at a height of 1,200 ft., taking with him one of the pupils. Messrs. Jullerot, Fleming, and Gordon-England all made splendid exhibition flights, afterwards Mr. Gordon-England taking off again, carrying Fleming as passenger. He was in the air 30 mins., and when flying at 1,200 ft. he shut off his engine, and after making some fine turns finished with a spiral *vol plané*. Lieut. Pepper, R.G.A., then took the air, and finished the other half of his tests for his *brevet*, flying very steadily. Mr. Pizey followed, being up at 1,000 ft. around the plains. On returning to the hangars he found the wind had suddenly changed and caused him a little trouble, resulting when landing in the fracture of a stanchion in the tail. On Tuesday evening Messrs. Pizey, Jullerot, and Fleming were busy instructing pupils. Busteed was away in connection with the European Circuit, and Lieut. Cammel was on a visit to Eastchurch, where he was trying Lieut. Dunne's new machine, described in FLIGHT last week.

Southport Aerodrome.

ON the 12th and 13th ult. Mr. Gaunt out the "baby" racing biplane which he has designed and built, and is now learning to fly, and made several straight flights up to half a mile each. On Thursday morning he did a mile, and in the evening a mile and a half, descending with the engine stopped from a height of 60 ft., landing perfectly. Friday was a blank, the weather not clearing until sunset on the 17th ult., when Mr. Gaunt ventured out and flew two miles again, gliding down and landing perfectly after taking a half turn. For speed and steadiness the machine leaves nothing to be desired, and all the flights have been made with the engine (30-h.p. Alvaston) throttled down.

On the 23rd. ult. Mr. Gaunt made a very good flight from his hangar at the north end of the Promenade to the Pier. In the evening he again made this trip and was able to fly back to his hangar. A third trip was made subsequently, making the total distance flown during the day about seven miles.



AT THE GLASGOW BARRHEAD FLYING GROUNDS.
—Mr. James Clinkskill about to start for a spin on his Blériot.

JULY 1, 1911.

FLIGHT

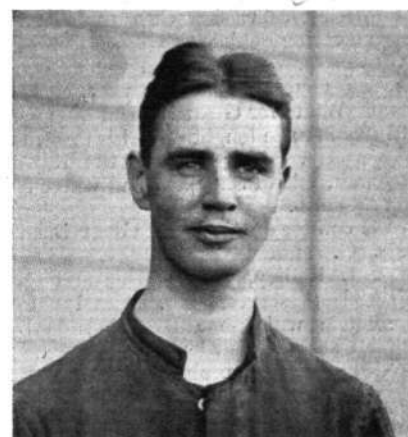
GORDON-BENNETT AVIATION CUP RACE. EASTCHURCH, JULY 1ST, 1911.



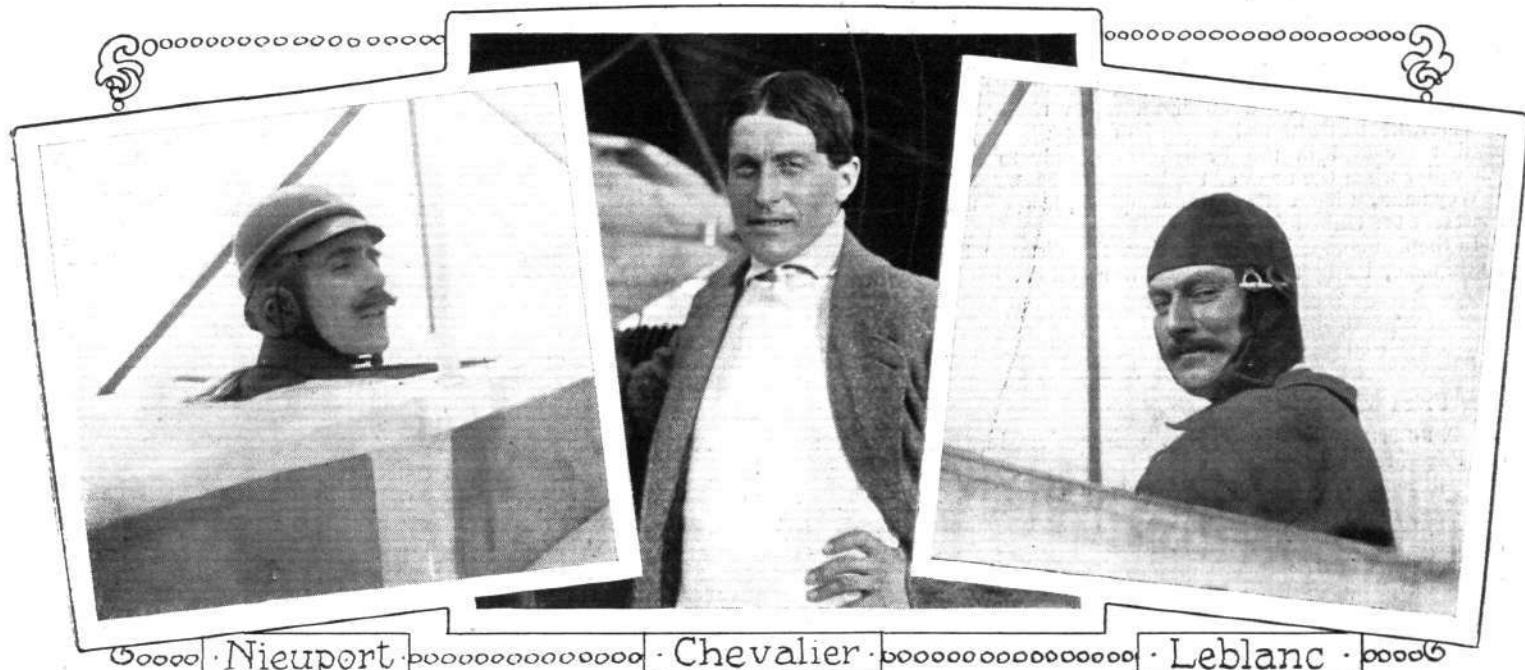
· Gustav Hamel ·



· Alec Ogilvie ·
The Pilots for Great Britain.



· Graham Gilmour ·



· Nieuport · · Chevalier · · Leblanc ·

The Team representing France.



· J. Radley ·



· J. Valentine ·
The Reserve Pilots for Great Britain.



· O.C. Morison ·

THE GORDON-BENNETT AVIATION CUP.

THE thoughts of most keen aviation enthusiasts will be turning towards Eastchurch to-day, Saturday, in view of the fact that some of the world's best flyers will be competing there for the blue ribbon of the air. This is the third International Competition for the Gordon-Bennett Aviation Cup, the first having taken place at the Rheims meeting on August 28th, 1909, when it was won by Glenn H. Curtiss for America, and the second at Belmont Park, New York, on October 29th last year, when the winner was Claude Grahame-White for Great Britain. Hence this year the battle for the trophy is to be fought on British soil, the race, as our readers are already aware, taking place at the Royal Aero Club's ground at Eastchurch, Isle of Sheppey, and where it is timed to start shortly after 11.30 a.m.

In the contest on Saturday Great Britain will be represented by Messrs. G. Hamel, Alec Ogilvie and Graham Gilmour, while Messrs. J. Radley, J. Valentine and O. C. Morison have been nominated as reserves. Mr. Hamel will fly a new Blériot machine. Mr. Ogilvie will use a Baby Wright biplane similar to that on which he secured third place in the competition last year, while Mr. Gilmour will probably pilot a Bristol monoplane. The race is over a distance of 150 kiloms., roughly speaking about 94 miles, and the circuit will be about between three and four miles round.

The French team consists of MM. Leblanc, Nieuport and Chevalier, the first-named using a Gnome-Blériot machine, and the second and third Nieuport machines fitted respectively with Nieuport and Gnome engines. Aubrun (Deperdussin), Vedrines (Morane), and Gibert (R.E.P.) have been nominated as reserves.

Chevalier qualified at Mourmelon on the 20th ult. by flying 150 kiloms. in 1h. 43m. 35s. On the same day Aubrun set out to qualify for the French team, but being unable to start until late in the afternoon, he came down after covering 70 kiloms. As, however, he had attained a speed of 125 kiloms. an hour, he was at first included in the French team, only to be displaced by Chevalier when the news of the latter's trial became known.

Weymann, using a Nieuport monoplane, has been nominated to represent the United States.

In the first competition at Rheims the distance flown was only 20 kiloms., being two rounds of a 10 kilom. circuit. On that

occasion there were five competitors, France being represented by a full team of three, L. Blériot (Blériot), H. Latham (Antoinette), and Lefebvre (Wright). Glenn H. Curtiss (Curtiss) upheld the colours of the United States, and G. B. Cockburn (H. Farman) represented Great Britain. The winner was Curtiss, who completed the two laps in 15 mins. 50³/₄ secs., Blériot being second in 15 mins. 56¹/₄ secs., and Latham third in 17 mins. 32 secs. In last year's competition there were eight competitors, America being represented by Brookins (Wright), Drexel (Blériot), and Moisant (Blériot). Great Britain had a full team of three, consisting of C. Grahame-White (Blériot), J. Radley (Blériot), and A. Ogilvie (Wright), while France relied upon Leblanc (Blériot), and Latham (Antoinette). The course was 5 kiloms. round and had to be covered 20 times, and curiously enough, as in the first contest, the first competitor to make the attempt proved to be the winner. Grahame-White completed the 20 laps in 1h. 1m. 47⁴/₅s. Only two others completed the full distance, these being Moisant, whose time was 1h. 57m. 48⁸/₅s., and Ogilvie, who owing to ignition trouble which caused a 54 min. stop, took 2h. 6m. 36s. Leblanc, after making the speediest flight over 19 circuits, was put out of the race owing to his machine fouling a telegraph post.

After the meeting, it was suggested that the next competition for the Trophy should be held over a cross-country course; but after full consideration had been given to the proposal by the Fédération Aéronautique Internationale, it was decided, for this year at least, to hold the race over a closed circuit, the distance, however, being increased to 150 kiloms.

To witness the race at Eastchurch to-day, it should be noted that a special train will leave Victoria, S.E. and C.R., at 9.30 a.m. calling at Herne Hill at 9.40 a.m. and arriving at Eastchurch at 11.10 a.m. For those who prefer to travel by road a route map was published in our last issue showing the roads to Eastchurch, and arrangements have been made on the ground for an enclosure for motor cars from which an uninterrupted view of the whole race can be obtained. Special arrangements have been made for the supply of refreshments, the catering for which is in the hands of the Army and Navy Stores. At the close of the race it is proposed to give an informal dinner to the competitors, when the Cup will be presented to the winner.

BRITISH NOTES OF THE WEEK.

Our Prize Model Scheme.

A FURTHER contribution has been received in connection with our Prize Model Scheme from Samuel Smart, Jun.

Further Prohibition Orders by the Home Secretary.

A FURTHER order was issued the other day by the Home Secretary under the Aerial Navigation Act prohibiting the navigation of aircraft of every description within four miles of the city of Norwich on the 28th ult., when the King visited the Royal Agricultural Show, and also within four miles of Windsor Castle to-day, July 1st, when the King and Queen go to Windsor.

Legislation Against Aerial Spies.

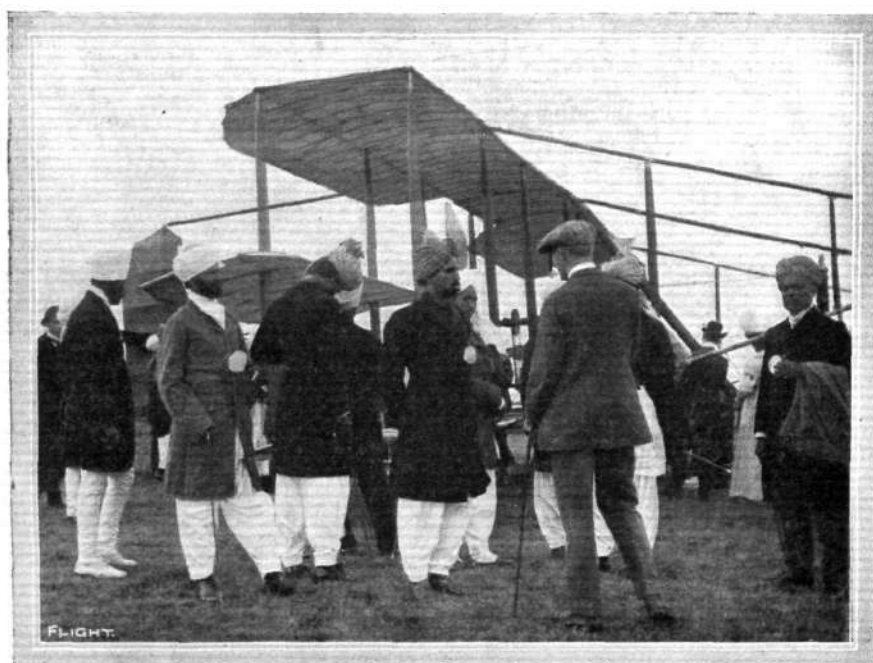
IN reply to a question by Mr. Perkins as to whether it was proposed during the present Session of Parliament to initiate any legislative proposals for the better protection of arsenals, military camps, powder magazines, and fortifications against aerial alien espionage, Col. Seely said the subject was receiving the consideration of the Government, and the measures required, providing the necessary security, will be taken at the earliest possible date.

A South Wales Aeroplane.

INCREASING success is now being attained by Mr. Ernest Sutton, who, during the last week, was able to make several promising flights on his monoplane. Endeavours are being made to procure the use of a suitable flying ground in the neighbourhood of Swansea, so that the public may be enabled to witness some of the flights.

Parcels Delivery by Aeroplane.

AN interesting experiment was arranged by the General Electric Co. to take place at Brighton on Thursday evening last. Briefly, the idea was that Mr. H. Barber should carry from the G.E.C. Worthing depot to the Hove Marine Park a parcel of Osram lamps for delivery to a Brighton customer. It was also proposed that the machine should be illuminated by Osram lamps.



Some of the Indian Coronation guests at Brooklands Flying Grounds.—This group of Indian officers are much interested in an extempore lecture by a British officer in mufti.

A Model Club for Leeds.

MR. TOM WALKER, 5A, Hulland Street, Hunslet Road, Leeds, would like to meet youths and young men interested in aviation, with a view to forming a model club.

Model Clubs for Bath and Liverpool.

AN endeavour is being made to form a model aero club among the large number of people interested in aviation in the neighbourhood of Bath, and those who wish to join, or would like further particulars, should communicate with Mr. Stanley H. Baker, 11, Elm Place, Bloomfield Road, Bath. Also at Liverpool it is proposed to form a club among the many model makers in the district, who are asked to communicate with Mr. Alex C. Pugh, 39, Brooke Road, Bootle, Liverpool, in order that arrangements may be made for a meeting.

Southport's Aviation Meeting.

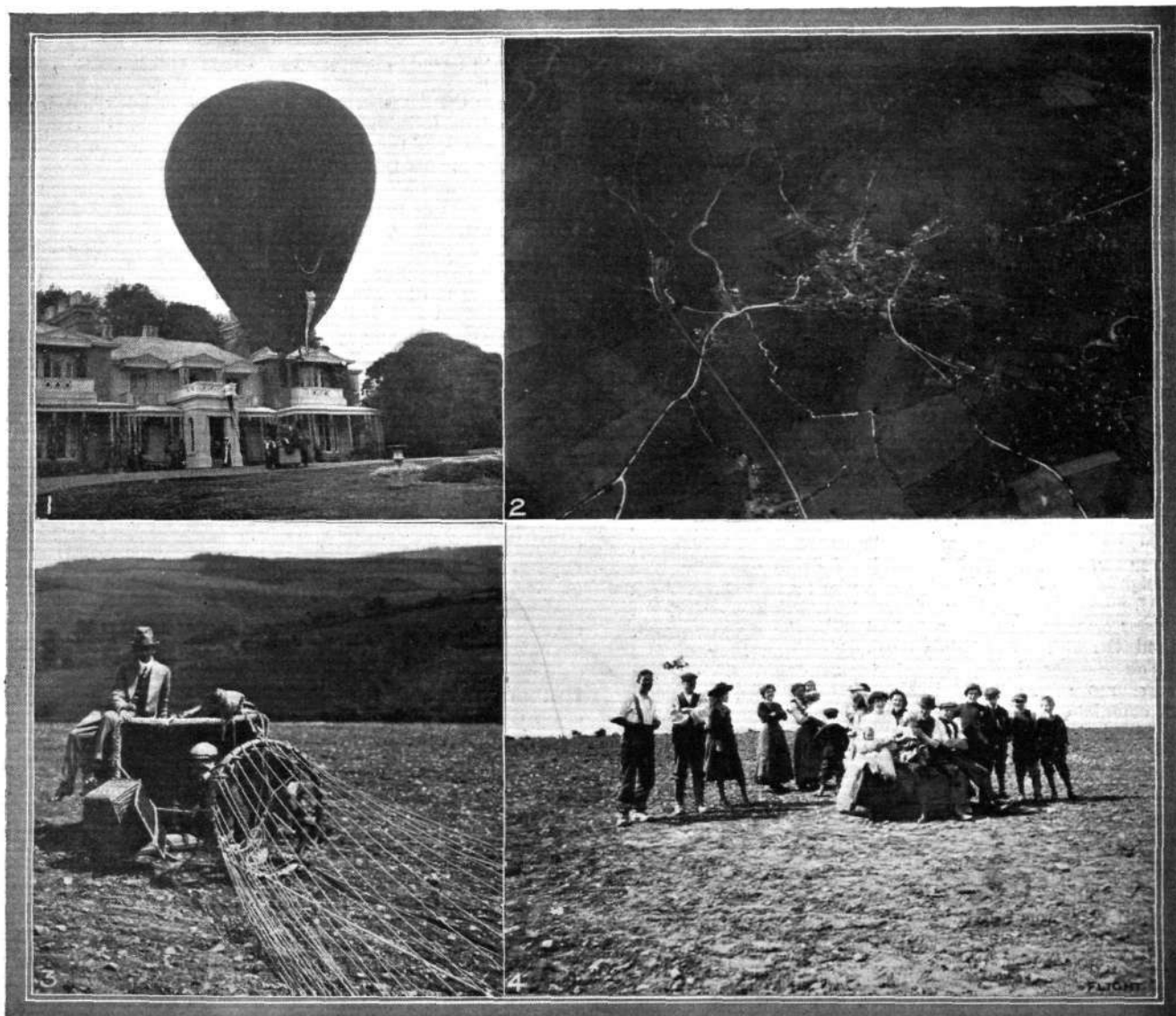
ILL-LUCK pursued the Committee in charge of the aviation meeting arranged in connection with the Coronation festivities at Southport; for although everything was in perfect order, the wind, on Thursday of last week, persistently refused to drop below 35 m.p.h., thereby rendering flying out of the question. Mr. Claude Grahame-White was on the ground with a Farman biplane and one of his new "Baby" machines, and the great crowd which had assembled bore patiently their disappointment. At about five o'clock, although it was still blowing too strongly to venture aloft, Mr. Grahame-White had the "Baby" machine brought out, and made one or two runs along the ground.

The weather conditions on Friday were very much better, and

Mr. Grahame-White was out early making some trial flights. The meeting officially opened at two o'clock and by that time a great crowd had assembled in the various enclosures. Mr. Grahame-White had both the machines brought out and after a flight on each had to suspend operations for a few minutes owing to a heavy shower. As soon as the rain was over Mr. White got the Farman in the air and during a thirteen minutes flight executed several manoeuvres which drew loud applause from the spectators. Then in quick succession five passengers, including a lady, Mrs. Leonard Williamson, were taken up.

Flying was resumed a few minutes after seven in the evening, when Mr. Grahame-White during a quarter of an hour's flight on the Farman biplane made several fine glides, sharp turns, &c. After a second trip he changed over to the "Baby" and made a flight on that, followed by a further jaunt on the Farman. Then, in response to the urgent requests of a large number of admirers, a series of passenger flights were carried out, the first to be so gratified being the Mayor's daughter, Miss Austin. Five other ladies and gentlemen were taken up, by which time the Mayor had decided personally to risk an excursion into the central blue. Discarding his top hat, but retaining the civic chain, Alderman C. E. Austin climbed up behind Mr. Grahame-White, and in the gathering dusk was carried for a couple of circuits of the ground. Another flight followed with a passenger, and it was then decided, in view of the darkness, to suspend operations for the day.

Saturday was another blank day, as the high wind and heavy rain rendered flying out of the question, and a great number of visitors who had journeyed to Southport had to swallow their disappointment, while there being no improvement on Monday the Committee decided to abandon the meeting.



BALLOON TRIPS IN THE SOUTH OF ENGLAND.—By Mr. Gustav P. Stollwerck. 1. Balloon "Dunlop" at anchor in Mr. King's Park at Worthing on May 20th. 2. Balloon "Hannover" passing over Colyton at a height of 5,000 ft. on May 28th. 3. Descent of the "Hannover" at Dunsford. 4. The Dunsford natives and their families "resting" on the packed-up balloon pending its transport to the railway station.

THE EUROPEAN CIRCUIT.

IN our last issue we were able to just briefly chronicle the incidents which took place on the opening day of the European Circuit, and to record that seven competitors had succeeded in completing the first day's stage of 325 kiloms. from Paris to Liege. Late in the day of the 18th ult. another arrival at Liege was Renaux on his Maurice Farman. Eleven other competitors, including Loridan (H. Farman), Prevost (Deperdussin), Morin (Blériot), Bill (H. Farman), Le Lasseur (Blériot), Contenet (Astra-Wright), Verrept (Morane), Wynmalen (H. Farman), Kimmerling (Sommer), Amerigo (R.E.P.), and Tabuteau (Bristol), reached Rheims, and of these Morin continued on to Cesbron, Prevost to Billain, Kimmerling to Villiers-Aviation, Wynmalen to Mezieres, and Loridan to the same neighbourhood. Of the others who did not complete the stage Bobba stopped at Danvilliers, Pascal at Verdun, Valentine and Legrand at Sainte Meneshould, Count D'Hespelet at Puisieux, Morison at Gagnyl, "Dalgr" at Longpont, Allard at Savigny, Molla at Chelles, and Train at Crepy-en-Valois. The following day saw ten more of the competitors arrive at Liege, these being Kimmerling, Tabuteau, Prevost, Wynmalen, Verrept, Gibert, Amerigo, Bathiat, Le Lasseur, and Train, while several of the others reported progress, Contenet getting on to near Liege, Bobba to Sainte Meneshould, Pascal to Chalons and Valentine to Rheims, while Gaget, who had made a fresh start from Vincennes, after landing at Rheims was brought down at Mohon in the Ardennes. Bad weather prevented any progress being made on the 20th ult. and so the short stage of 60 kiloms. to Spa and back had to be postponed to the following day. The weather having cleared on the 21st ult., it was decided to make the trip to Spa, and long before 6 a.m., the time fixed for the start, a large crowd had gathered at the aerodrome. It was not, however, until half-past seven that the first machine got under way and Vidart, on the Deperdussin, was actually the first to get away, followed two minutes latter by Vedrines, the Paris-Madrid hero, these being followed at short intervals by ten others. Several more made the trip during the day, and altogether fifteen succeeded in completing the double journey, including Vidart, Vedrines, "Beaumont," Garros, Duval, Weymann, Barra, Renaux, Gibert, Kimmerling, Amerigo, Prevost, Verrept, Le Lasseur and Train. The fastest time was put up by Vedrines, Vidart being second and "Beaumont" third. Three of the eighteen who started during the day failed to finish, these being Bathiat, who stopped at Avenir, close to Bonnal, Tabuteau, who landed at Ocquier, and Wynmalen, who stopped at Vielsanne. One more—Contentet, on the Astra-Wright—completed the stage from Vincennes to Liege.

The third stage from Liege to Utrecht was taken on the 22nd ult., when ten competitors succeeded in getting through, the fastest time being made by Gibert on an R.E.P. monoplane, the second place falling to Garros on a Blériot, while the others in their order of arrival being Vidart, "Beaumont," Weymann, Kimmerling, Train, Renaux, Tabuteau, and Wynmalen, the last two having qualified to continue in the race by making the trip to Spa and back in the early morning. During the day Molla finished the journey to Liege, and so raised the number who completed the first stage to 20. Five others set out from Liege, but Amerigo fell almost as soon as starting, Le Lasseur got to Echt, close to Maestricht, Vedrines was delayed in the same neighbourhood, Barra landed at Austerlitz, and Duval about 10 kiloms. from Venloo. Friday of last week was a rest day, but four of the starters from Liege who had fallen by the way continued, and reached Utrecht, these being Barra, Vedrines, Prevost, and Duval. The last mentioned got within 5 kiloms. of Utrecht when his carburettor froze, but after some delay he started again, and was able to complete the journey. On Saturday the competitors were to have gone on to Brussels, but the bad weather necessitated a postponement. So severe in fact was the wind that two sheds were blown down. Fortunately the flying machines, one of which was Tabuteau's Bristol, had been previously moved out of the shed. On Sunday the weather looked somewhat better, but the aviators

with one accord refused to go on, and a further postponement was necessary. On Monday morning the weather was still so bad that there was no possibility of the race being continued. Later in the day conditions improved and led by "Beaumont" thirteen of the competitors who had progressed so far set out for Brussels. "Beaumont" was the first to reach the Belgian capital, followed by Kimmerling, Vedrines, Garros, Gibert, Duval and Renaux. Of the other starters Barra, Tabuteau, Train and Prevost were delayed in the neighbourhood of Breda. Wynmalen got to Brasschaet, near Antwerp, and Vidart stopped at Malines. Wynmalen and Vidart continued to Brussels on Tuesday morning, the latter having had a smash at Louvain. He, however, motored to Brussels and obtained a new machine. Le Lasseur when landing at Breda smashed his machine, while Barra descended on the roof of a house in the Royal Park at Laeken.

Up to the end of the fourth stage at Brussels the official placing in the race was as follows:—

			h.	m.	s.
1.	"Beaumont" (Blériot)	...	45	9	36½
2.	Garros (Blériot)	...	47	58	56½
3.	Vedrines (Morane)	...	65	8	26
4.	Gibert (Rep)	...	68	0	27½
5.	Renaux (M. Farman)	...	69	13	59½
6.	Kimmerling (Sommer)	...	72	59	35
7.	Duval (Caudron)	...	74	44	14
8.	Wynmalen (H. Farman)	...			
9.	Vidart (Deperdussin)	...			

On Wednesday the competitors were to continue their journey to Roubaix, and on Thursday Calais was to be the destination. All going well the competitors were to then continue their journey from Calais on to London, stopping at Dover and Shoreham on Friday (yesterday).

At Dover the flyers were to be met at the A.I.R. Aerodrome by a Committee of influential people, including the Corporation and representatives of the Naval and Military forces, while the competitor to make the fastest time across the Channel receives a special hundred guinea silver cup. At Brighton, where the aviators were to be welcomed at the Shoreham Aerodrome, similar arrangements were in force.

The London Aerodrome at Hendon is the station for London, and there a Committee, headed by Mr. Davison Dalziel, M.P., and including the Lord Mayor and Sheriffs of the City of London, the French, Belgian and Dutch Ambassadors, the Duke of Teck, the Duke of Argyll, and many others, were to receive the competitors. In the afternoon the officials, aviators, &c., were to be received at the Royal Automobile Club, while in the evening, at the invitation of Mr. Oswald Stoll, a visit to the Coliseum had been arranged. On the following day a luncheon will be given by the *Standard* newspaper to the flyers, officials and distinguished guests at the Savoy Hotel, when Mr. Dalziel will preside. The return journey will be made, weather permitting, on the second day after the arrival of the competitors in England.

In order to guide the competitors on their way across the Channel, the French Admiralty have granted the services of five torpedo boats, while Dover is providing three tugs and two big motor boats. The Calais Chamber of Commerce are stationing a tug, from which will float a large captive balloon, halfway across the Channel, while the Aerodrome at Dover, as well as those at Shoreham and Hendon, will be marked by captive balloons. Between these points great white arrows, 72 ft. long, will point the way. At Hendon, Shoreham, and Dover, the arrival and departure of the competitors will be heralded by the discharging of bombs. Special trains will be run from Dover, enabling those who see the arrivals there to journey to town in order to witness the finish at Hendon. The Commissaires Sportifs will follow the race in motor cars, generously placed at their disposal by the Rolls-Royce and Sheffield-Simplex Cos.

safely landed there at 6.37 a.m., having had a very trying time fighting his way against the strong wind.

Fast Cross-Country Flying.

IN connection with the French aerial manoeuvres, Lieut. Malherbe made a very fine performance on Monday morning when he flew from Vincennes to Douzy. He made a stop at Rheims on the way, but his net flying time for the trip of 286 kiloms was 1 hr. 44 mins., so that his speed works out at 163 kiloms. per hour. A violent wind was blowing at the time, and this no doubt assisted the Gnome-engined Blériot in its task. Naturally the officer was given a very enthusiastic welcome by the officers of the Sedan Garrison.

AT THE FRENCH ARMY MANŒUVRES.

Two Maurice Farman biplanes, piloted by Capt. Eteve and Lieut. Cheutin respectively, and carrying Lieut. Mazac and Lieut. Colville as observers, left the St. Cyr Aerodrome, near Versailles, on the morning of the 22nd ult., and by slightly different routes they flew to Rheims, both machines, practically simultaneously, having taken 2½ hours for the trip. On Sunday, although the wind was blowing at a velocity of between 15 and 20 metres a second, these military flyers determined to go on, and successfully made the trip to Douai, a distance of 215 kiloms.

On Saturday, Lieut. Blard, on a Henry Farman biplane of the small racing type, left Chalons at 4.35 a.m., and steering for Douai,

FOREIGN AVIATION NEWS.

A Further Speed Record by Nieuport.

NOT satisfied with his world's speed record of 129'217 k.p.h., Nieuport, on the 21st ult., taking advantage of the presence at Mourmelon of the official timekeeper of the Aero Club of France in connection with the Gordon-Bennett Trials, flew 10 kiloms. on his Gnome-engined Nieuport at a speed of 133'126 k.p.h.

Aerial Tour of France.

MAKING a fresh start from St. Gaudens on the 19th ult., Lieut. Menard on his Henry Farman machine succeeded in reaching Toulouse after an hour's flight. In the afternoon he attempted to continue his journey, but in a sudden landing considerably damaged the machine, and a couple of days afterwards he announced his intention of abandoning the project for the present and returning to Paris by motor car.

A Honeymoon Trip.

HAVING attained proficiency in the ordinary handling of the Breguet biplane, Lieut. Peralda, on the 19th ult., received permission to try for altitude. At his first attempt he found no difficulty in getting up to a height of 1,000 metres. Subsequently the officer, who has only recently been married, gave his bride *le baptême de l'air*.

Anzani-Blériots at Issy.

SOME very fine flights have recently been made at Issy with Blériot monoplanes fitted with Anzani engines. On the 22nd ult. Anzani himself was flying for an hour on such a machine, and Darioli on a Blériot, fitted with a 6-cyl. Anzani engine, made one or two good trials, as also did Sadi-Lecomte on a similar machine.

From Orleans to Paris.

MOUNTED on a Blériot monoplane, to which he had fitted a 50-h.p. Viale engine, Dancourt, on the 21st ult., succeeded in flying from Orleans to Paris, a distance of 135 kiloms., in 1 hr. 19 mins. Before landing at the Issy Parade Ground, Dancourt continued on, and circled the Eiffel Tower, so that there might be no doubt that he did actually reach the city of Paris.

At the Deperdussin School.

DURING last week a deal of work was put in at the Deperdussin School, at Courcy Betheny. On one day, Chapel, after executing several figures of eight on a two-seater machine, fitted with a 50-h.p. Anzani engine, carried Lieut. Boncour and Madame Prevost for a short trip. Lieut. Porte and Mr. D. L. Santoni each made a cross-country trip on their small machine by way of training for the *Daily Mail* cross-country competition, for which they have entered.

The Turin Meeting.

OF the last days of the Turin flying week most flying was seen on the 22nd ult., when Fischer on a Henry Farman biplane, and Weiss on a Pivot monoplane, both made the round trip to Sagra St. Michael and back, a distance of 58 kiloms. Manissero on a Blériot won the speed contest, covering the 20 kiloms. in 14 mins. 34 $\frac{2}{5}$ secs., and Weiss was second. Cagno on a Farman, and Labouchere on a Zodiac biplane, both made trips with passengers, while flights were also made by Cobiauchi (Farman), Ruggerone (Farman), and Neri (Antoinette). On the 23rd, Chevalier Neri on his Antoinette covered 100 kiloms. in 1 hr. 8 mins., and Mdle. Marvingt made a good trip, for which she was awarded the Ladies' Cup.

On the closing day of the meeting, Sunday last, some splendid flying was seen. Manissero and Fischer both flew for fifty kiloms, Martinet and Cagno each took two passengers for ten minute trips on their Farmans, and afterwards both carried three passengers. Weiss also made some very good flights.

Cattaneo Wins a Prize.

CATTANEO on his Blériot monoplane succeeded in flying from Rosario to Buenos Ayres on the 25th ult., covering the 400 kiloms. in about six hours. By this exploit he won the prize of £600 which was offered some time ago and, of course, beat all local records for cross-country and distance flying.

Cologne and its Fortifications.

ON the representations of the Cologne Aero Club the Governor of the fortress of that city has given permission to members of the club to fly above the fortifications, provided that they do not carry any photographic apparatus, and if a passenger is carried that they will see to it that he is not guilty of any acts of espionage. These regulations apply to balloons, dirigibles and aeroplanes.

Flying from Munich to Berlin.

IN an endeavour to win the prize of 50,000 marks offered for a flight from Munich to Berlin, Hirth, on his biplane, and accompanied by a passenger, left the Puchheim Aerodrome, near Munich, on Monday evening and flew to Nuremberg.

Vienna to Budapest and Back.

ON the 22nd ult. Captain Umlauff succeeded in flying from Vienna to Budapest, the journey taking 2 hrs. 18 mins. The return journey to Vienna was made on the 24th ult., when the officer did the journey in 18 mins. less time. Unfortunately, a large crowd had assembled to see the arrival, and Captain Umlauff found it extremely difficult to land his machine. In order to avoid running into the crowd, he had to bring it down so suddenly as to practically wreck it.

Holland Follows Mr. Churchill's Tactics.

ENGLAND is not the only country in which legislation against aviators is being attempted, for an announcement has been made that flying will be prohibited over Amsterdam on July 4th, 5th, and 6th, when President Fallières will be visiting the city. This prohibition refers both to aeroplanes and airships.

Mr. Sopwith in New York.

ON Sunday afternoon Mr. Tom Sopwith had quite a busy time at the Garden City Flying Ground, Long Island, carrying quite a number of prominent New York people for quarter hour flights at a charge of \$50 a head. The first to go up was Mr. Henry Taft, who, during a twenty minutes flight, was taken to a height of 500 ft. On descending he described it as the most thrilling experience he had had, and suggested that his brother, if he could be induced to venture aloft, might find such exercises very beneficial.

Catching up a Liner.

ON Wednesday Mr. Sopwith received a commission from Mr. John Wanamaker to deliver a package to Mr. W. A. Burrell who had left New York on the outgoing "Olympic." Starting from Garden City with a passenger, Mr. Sopwith overtook the liner at Fort Hamilton and dropped the package on the deck after which he flew back and landed at the Crescent Athletic Club, Brooklyn.



M. Henri Bregé, one of the chief pilots of Breguet machines, taking instructions as a sapper from Lieut. Ludmann, aviation officer in command at Douai, in connection with a military aerial reconnaissance.

THE GERMAN NATIONAL CIRCUIT.

CONTINUING the story of this event from where we had to break off in our last issue, the half-dozen aviators who had journeyed from Hamburg to Kiel on the 17th ult. were added to on the 20th by Koenig, who covered the 83 kiloms. between Hamburg and Kiel in an hour and a quarter. On the 21st ult. some good flying was seen at Kiel, Hirth beating the German altitude record by rising to 2,200 metres, while he was also flying with a passenger over the bay at a height of 600 metres.

The fifth stage in the Circuit, from Kiel to Luneburg, was made on the 23rd ult., and of the seven starters from Kiel four completed the journey of 147 kiloms. in good time, Lindpaintner being first, Buchner second, Volmuller third, and Thelen fourth. Saturday last these same four started out for Hanover, this stage of 124 kiloms. being deemed the most difficult of the whole Circuit. Three succeeded in getting through, Lindpaintner being first, Thelen second, and Volmuller third. The last mentioned had to make a stop at Ehlershausen, while Buchner, who also set out from Luneburg, only succeeded in getting a very short distance before capsizing and seriously damaging his machine. The seventh stage, from Hanover to Munster, with controls at Minden and Bielefeld, was undertaken on Monday last

by half a dozen competitors. Lindpaintner considered it sufficient to get as far as Minden, Volmuller went on to Bielefeld, and Schauenburg also stopped at Minden, while the others failed to make any substantial progress. During the morning Dr. Wittenstein left Luneburg, accompanied by a passenger, in an endeavour to catch up the other competitors, but the machine tumbled into the River Ilmenau, and although the occupants escaped with a wetting, the aeroplane was considerably damaged.

On the 27th ult. both Volmuller and Lindpaintner succeeded in completing the stage to Munster, the former flying the 77 kiloms. from Bielefeld in 1 hr. 8 mins. Lindpaintner, as a matter of fact, lost his bearings through the mist and flew about 20 kiloms. beyond the official station at Munster and had to return. Thelen also attempted to go on from Minden and met with a most extraordinary run of bad luck. He was about 14 kiloms. from Bielefeld when he landed suddenly in a wheatfield, and 3 kiloms. from Bielefeld he was thrown out of the machine which then ran along the ground until it capsized. Fortunately the aviator escaped with a few bruises.

On Wednesday the competitors were to fly to Cologne calling at Weser and Neuss on the way.



CORRESPONDENCE.

. The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

Correspondents communicating with regard to letters which they have read in **FLIGHT**, would much facilitate ready reference by quoting the number of each such letter.

NOTE.—Owing to the great mass of valuable and interesting correspondence which we receive, immediate publication is impossible, but each letter will appear practically in sequence and at the earliest possible moment.

Sir William Bull and Aviators.

[1239] With reference to the leading article, entitled "Repression up to date," in your issue of June 10th, I shall be much obliged if you will allow me to defend my "woeful ignorance." I may say, to begin with, that I fully appreciate the great importance of aviation, and am wholly averse to legislation which would in any way have the effect of hampering or throttling a healthy and growing British industry. Having thus digressed, I come to the point. You take me to task for suggesting that before a person could receive an aviation licence he should be guaranteed in a sum of £100, so that there would be something to draw upon in the case of the aviator causing an accident. I respectfully submit that this is not unreasonable. Nobody will dispute that it is only fair that the innocent spectator at a cricket match, a race meeting, or any crowded function not directly connected with aviation should be entitled to receive some compensation in the event of injury caused to him by an aeroplane accident due to (a) recklessness on the part of the aviator, (b) faulty design of the machine, (c) faulty construction and material. Assuming that such an accident were to take place, resulting in the injury of a spectator, is it certain that he or his executors would receive compensation? Has the R.A.C. any special fund to meet these contingencies? As far as I know it has not. If "Monsieur Icarus," a mechanic representing the "Daedalus Aero Gesellschaft," comes a cropper, breaks his own neck, and injures two or three persons at the same time, is there any certainty that the latter will obtain any sort of satisfaction for their wounds? "Monsieur Icarus" would be repudiated by the "Daedalus" firm, and as he was dead, and without any relations to speak of, litigation in foreign courts would be a futile and highly expensive pastime.

I do not consider that the provision of financial guarantees should in any way hamper the trade. The moneyed amateur could easily find the necessary guarantees himself. The professional flying man who did not display criminal lunatic tendencies, whose machine was well designed and well formed, would similarly find little or no difficulty in obtaining the necessary guarantee by means of insurance at an almost infinitesimal premium. The public would, in my opinion, be somewhat safeguarded, and at the same time no impossible conditions would be imposed on the aviator.

King Street, Hammersmith.

WILLIAM BULL.

Mr. Ogilvie's Wright Biplane.

[1240] In regard to your Eastchurch correspondent's account of Mr. Ogilvie's smash last Thursday, he says that Mr. Ogilvie landed on rather rough ground, and the chassis of the "Baby Wright,"

being not strong enough to stand the strain, collapsed, thus showing that it was necessary to build strong chassis as well as to design machines to manoeuvre well in the air.

The facts of the case were, that the magneto became retarded, by itself, and Ogilvie was forced to land through the engine dying out. He happened to be over that rough road across the ground with the pond straight in front of him. In turning close to the ground to avoid it, the right-hand propeller struck the earth and broke. The remaining propeller, still turning, spun the machine round sharply before he had time to switch off, and swept the tail outrigger and back half of the skids off, sideways. The machine finally fell back on to the trailing edges of the planes and practically nothing else was broken except, of course, the other propeller. It was only a three days' job to have the machine ready to put the engine in again.

Eastchurch, June 21st.

V. LE CREN.

Steering by Compass.

[1241] In answer to Mr. Green (1216), the reference to the Jeanneton instrument in my article was merely a quotation from an article published a few weeks before in **FLIGHT**.

It is obvious that at present the only exact method of measuring speed over the ground is by taking time between points that can be recognised in the map.

Hampstead Norris.

R.A. (Retired).

"Usque ad Coelum."

[1242] *Re* Mr. Gainsford's letter reproduced by you from the *Pall Mall Gazette*. It would be interesting to know the size of Mr. Gainsford's cabbage patch. Is it large enough to fly over and is Skendleby anywhere near a recognised flying ground, because I have no doubt some of us will give him an opportunity of testing his rights *usque ad coelum*?

Everyone who has made any study of the subject is fully aware that the day is not far distant when the very safety of this country will depend as much on air as on sea supremacy.

Apologising for the length of my letter, possibly we both, Mr. Editor, pay too much attention to Mr. Gainsford's epistle. Taking this opportunity of congratulating you on the well deserved success of your journal.

JACK HUMPHREYS.

Man-Carrying Glider.

[1243] I am shortly going to build a monoplane glider of 26 ft. span, having a forward elevator but no tail. If the chord of the main planes is 5 ft. what should be the distance between the leading edge of the main plane and the elevator? Also what section wood should I use for the outriggers and main spars? Would silver spruce be the best? I should be much obliged if you or some reader of **FLIGHT** would answer these questions.

Marlborough.

R. MALLET.

MODELS.

Model Duration Records.

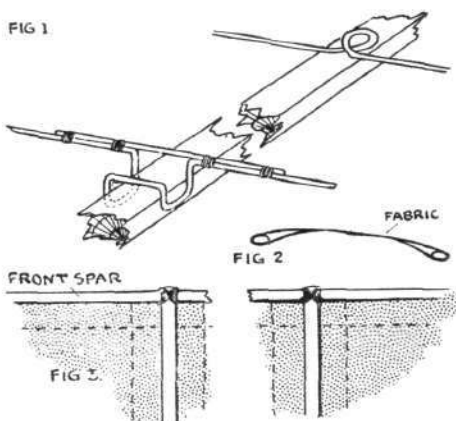
[1244] I read in Mr. Grimmer's article on the Mann monoplane (FLIGHT No. 129) that this machine holds the world's record for duration. May I state that it is not so, for I timed my friend's model, D. Holmes, for three flights, and the results were as follows: 1st flight 75 secs., 2nd flight 77 secs., and the 3rd 80 secs. All these flights were made by an elastic-driven machine on June 23rd. Thames Ditton. C. RIDLEY.

Model Construction.

[1245] With regard to Mr. P. Vere's letter (No. 1,021) asking how I made the planes of my models, and how single-screw models can be stopped from overturning, the following sketches will, perhaps, help him out of the difficulty. The framework can be made of piano-wire bound with fine floral wire and soldered, using as little solder as possible.

Fig. 1 shows a very neat piano-wire bracket for fixing the planes on to the body. A small band of elastic is just slipped round the stick and bracket to keep it in place until the proper position is found.

If piano-wire is not obtainable cane can be used instead, and the fabric fixed on as in the sketch below. When finished small strips



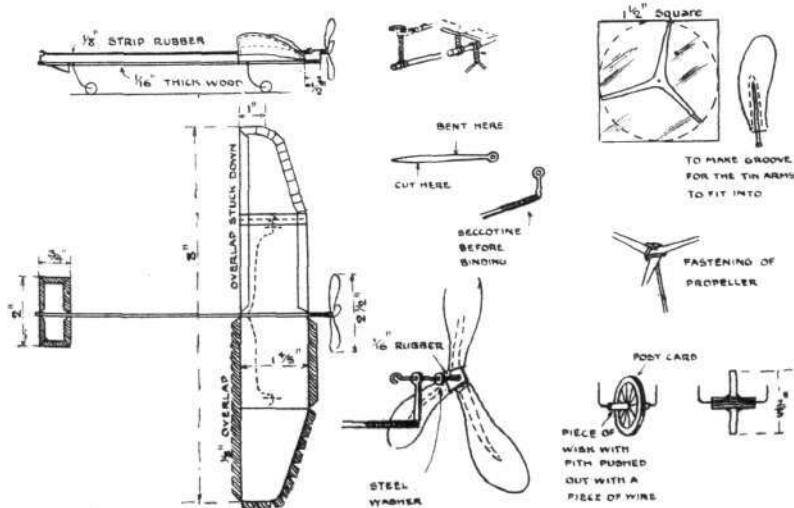
should be stuck over the ribs to avoid sharp edges, and the whole brushed over with paste to stiffen it. As to fitting propeller-shafts at an angle to each other I do not think it makes much difference. I make them because it is much easier to construct. I have made and experimented with small models, *à la* Clarke tail first type, and to stop them from capsizing I build them with a dihedral angle, small propeller, and thin elastic. If the other type, *à la* Blériot, is built, a large tractor-screw will not upset it, but a dihedral angle and rudder is essential.

Coventry.

L. G. RYLEY.

The Baxter Model.

[1246] In answer to Mr. Horner's letter (1108) for working drawings of my miniature models. The articles required for con-



struction are: Florist's wire, 1d. reel; fine tissue paper, four sheets, 1a.; 25 post-cards, 1d.; seccotine, 6d.; 360 steel pins, 1d.; a

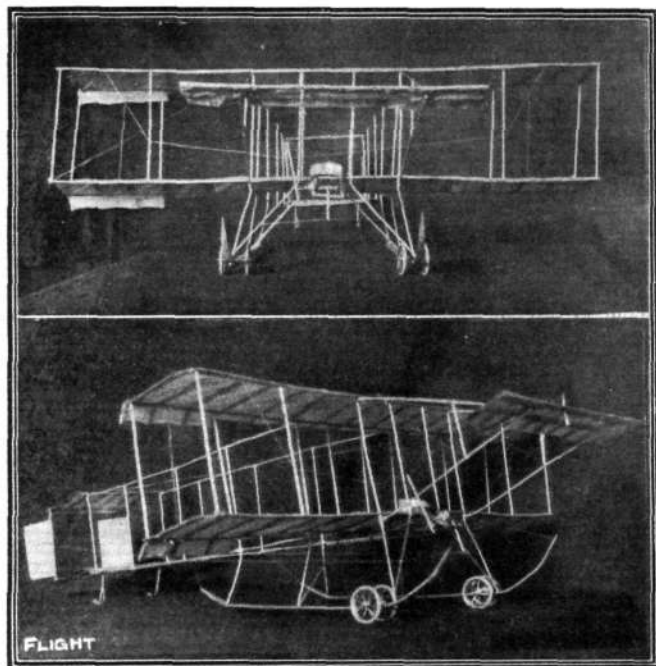
sheet of thin tin for propellers, which will cost 2d. or 3d. The rubber was out of an old golf ball, $\frac{1}{8}$ in. strip. These articles will make about twenty models. I think from the diagram which is enclosed he should be able to make it. I gave a demonstration to the scholars of Belle Vue School, Leeds, last year with these models, which were flown in the class-room.

Leeds.

L. BAXTER.

A Model Farman.

[1247] I send you two photographs of a model Farman, which



may be of interest to your readers. The engine and propeller are now in course of construction.

Burton-on-Trent.

C. O. HAYWARD.

Twisting Tail Control.

[1248] In reference to Mr. Ridley's letter (1199), it may interest him to know that I am making a model which, when completed, will have a twisting tail, and like him I thought I must be original, as I had not heard of this device being brought into use before. I thought there must be some device for balancing other than those which are the cause of certain legal proceedings in France, so I took particular notice of birds and found that they twist their tails both for steering and balancing, and I wonder that the method has not been taken up before.

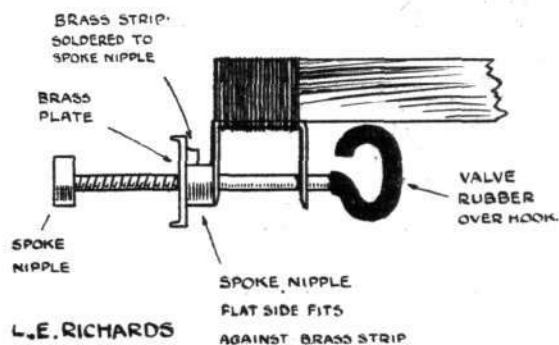
I am not surprised that Mr. Ridley found it very efficient on his glider. I should like to hear of experiments with a full-sized aeroplane; I think there would be no need for balancing tips or warping planes.

Redhill.

W. H. NORTON.

Propeller Mounting.

[1249] Replying to letter 1098. Use two propellers revolving in opposite directions for a model of this size in order to avoid twisting



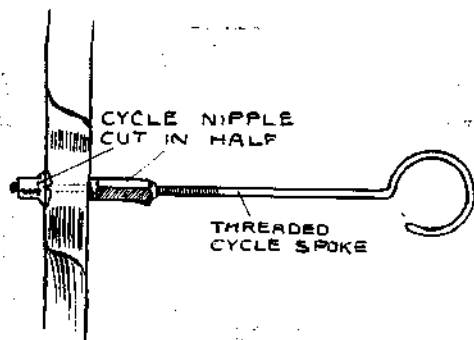
the frame and also as a means of obtaining adequate thrust throughout a long flight. Use $\frac{1}{8}$ in. square section elastic. Mount the propeller as shown in the sketch. The device consists of a bicycle spoke cut to required length, threaded at one end and curled into a

hook at the other. File the spoke nipple flat and fit a brass plate about $\frac{1}{16}$ in. by $\frac{1}{8}$ in. with upturned edges to grip into the boss of the propeller as shown in the sketch.

Lowestoft.

L. E. RICHARDS.

[1250] Replying to F. G. Newman in letter 1098. A nipple cut



W HURLIN

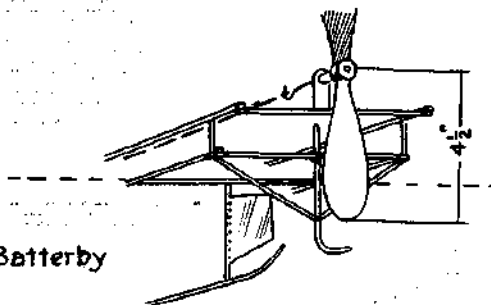
in half and fixed as shown is the simplest method. Use a 12 in. diameter propeller and 12 yards of $\frac{1}{16}$ in. elastic.

Paddington, W.

WESTON HURLIN.

Model Propellers.

[1251] The sketch I enclose may interest Mr. Chinnery (1043),



F. BATTERBY

who would, I think, be well advised to fit a larger propeller, and use a guard arranged somewhat as I have illustrated.

Hove.

F. BATTERBY.

AIRSHIP NEWS.

"Clement Bayard IV" Beats Dirigible Height Record.

ON the 19th ult., the dirigible "Clement Bayard IV" was out for over four hours at La Motte Breuil, and rose to a height of 2,000 metres (6,560 ft.), which it is claimed is a record for dirigible balloons. Six passengers were on board the airship, and the wind was blowing at a velocity of between 12 and 15 metres a second.

"Parseval V" Burnt.

ON Monday afternoon the miniature dirigible, "Parseval V," was destroyed by fire at Minden. It arrived there on the previous day in order to make a series of trips with passengers. No proper shelter was available for it, however, and when a strong breeze sprang up it was deemed prudent to dismantle the airship. While the envelope was being deflated the gas became ignited, apparently through one of the amateur helpers persisting in smoking a cigarette. The envelope was completely destroyed, and a number of persons were more or less injured by burning.

A New Zeppelin Liner.

ON Monday the new dirigible built to replace the "Deutschland" made her first appearance in the open and cruised for some time over Lake Constance, Count Zeppelin himself being on board. The new airship, which has been named "Schwaben" is on practically the same lines as the "Deutschland" which was wrecked at Dusseldorf on May 16th. The work of construction has occupied about two and a half months.

Messrs. Vickers' Ltd., Aerodrome at Dartford.

A GOOD deal of interest has been aroused locally by the news that Messrs. Vickers, Ltd., have acquired an extensive area of Dartford Marshes with the intention of using it as a testing ground and school for the monoplanes which they are at present building under the R.E.P. patents. A big shed is being erected near the "Long Reach" Tavern, and the ground, which is well suited for the purpose of an aerodrome, is being rapidly straightened out.

PUBLICATIONS RECEIVED.

Aerial Locomotion. By E. H. Harper, M.A., and Allan Ferguson, B.Sc. Cambridge: The University Press. Price 1s. net.
D.W.F. Patent Standard Ball Bearings. United Motor Industries, Ltd., 45-46, Poland Street, W.
The Compulsory Working of Letters Patent. By F. W. Beney. London: Wm. Clowes and Son, Ltd., 23, Cockspur Street, S.W. Price 3d.

AEROPLANE SYSTEMS (TO SCALE) ALREADY PUBLISHED IN "FLIGHT."

Antoinette	... Oct. 23, 1909	Martin-Handasyde	Mar. 25, 1911
"	... " 30, "	Mayfly	... Dec. 17, 1910
Avis	... Mar. 12, 1910	Maxim	... Apr. 30, "
Baldwin	... Sep. 10, "	"	... May 7, "
Blériot No. XI	... July 31, 1909	Neale	... Oct. 8, "
"	... 2 bis Dec. 31, 1910	Paulhan	... " 22, "
Bristol	... Mar. 18, 1911	Pfützner	... Mar. 12, "
Cody	... Aug. 21, 1909	Piggott	... May 21, "
"	... Nov. 12, 1910	Pilcher Glider	... Jan. 1, "
"	... " 19, "	"	... " 8, "
Curtiss	... July 3, 1909	Rucker-Edwards	Feb. 5, "
Dunne	... June 18, 1910	Sanders	... Mar. 4, 1911
"	... " 25, "	Santos-Dumont's	...
"	... " 24, 1911	"Demoiselle"	Oct. 2, 1909
Farman (Henry)	Oct. 16, 1909	"	... " 9, "
Grade	... Dec. 11, "	Short	... Mar. 19, 1910
Grahame-White	...	"	... " 26, "
"New Baby"	Mar. 25, 1911	"	... April 2, "
Hanriot	... Dec. 3, 1910	"	... June 10, 1911
Havilland (de)	April 9, "	Somerville	... Mar. 11, "
"	... " 16, "	Valkyrie	... Oct. 1, 1910
Herring-Burgess	... 23, "	Voisin	... Aug. 14, 1909
Lilienthal Glider	Jan. 1, "	"	... " 21, "
"	... " 8, "	Weiss	... June 17, 1911
Macfie	... Mar. 5, "	Wright Glider	Sep. 18, 1909
"	... " 12, "	Biplane	Mar. 12, 1910

Aeronautical Patents Published.

Applied for in 1910.

Published June 29th, 1911.

20,145.	N. H. E. WILLIAMS.	Flying machine.
14,114.	A. FOX.	Steering apparatus for airships.
14,610.	E. WILLIAMS.	Aeroplanes.
17,186.	J. W. DUNNE.	Aeroplanes.
29,166.	A. M. SINGER.	Aeroplanes.

Applied for in 1911.

Published June 29th, 1911.

3,270.	F. W. CROUCHER.	Undercarriages of aeroplanes.
7,427.	A. E. CHEVROLET.	Controlling aeroplanes.
7,965.	J. D. ROOTS.	Flying machine.

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